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THE DISTRIBUTION OF BENEFITS FROM THE 1982 FEDERAL CROP PROGRAMS

COMMITTEE ON THE BUDGET
UNITED STATES SENATE

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FOREWORD

The Agriculture and Food Act of 1981 will expire in 1985. Federal expenditures for the farm price support programs have increased dramatically over the 4-year period intervening since the last major farm bill debate. During this same period, economic stress has been prevalent on our farms and in our rural communities.

Congress will, therefore, reauthorize the major farm price support programs in an atmosphere of concern over their costs and effectiveness in achieving stated objectives. This study was prepared to analyze one aspect of Federal crop programs—the distribution of direct payments.

This study was prepared under the direction of the committee's majority staff. The primary authors were Patrick H. Gardner, formerly an intern with the committee, now at the University of Virginia; G. William Hoagland, the committee's deputy staff director; and Randall A. Kramer, assistant professor, Department of Agricultural Economics, Virginia Polytechnic Institute and State University. Technical computer assistance was provided by James Estep and Daniel Wahl of the Senate Computer Center.

The study provides previously unpublished statistical data of 1982 Federal crop program payments. Views and opinions expressed by the primary authors based on their analysis are their own and do not necessarily reflect the views or opinions of the committee and its members.

PETE V. DOMENICI,
Chairman.

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SUMMARY

The data for this study were derived from the 1982 Agricultural Stabilization and Conservation Service (ASCS) farm and producer record files. This data includes 1982 farm program year participation and production data for all producers enrolled in ASCS farm commodity programs. More than 471,000 farms, representing 21.0 percent of all farms in 1982, participated in the price support programs for wheat, feed grains, cotton, and rice. Nearly 73.6 million acres were reported planted under these programs, representing about 16.5 percent of total cropland acreage in 1982.

The 1982 ASCS data were analyzed to determine: (a) who participated in the commodity programs, (b) what were participants benefits, and (c) how have benefits changed over time? The study results are organized principally by region, farm size, and crop type, although State data are reported in some instances.

Participation

Cotton producers participated most intensely in the commodity programs with 80.0 percent of all U.S. cotton acres participating. Rice producer participation was nearly as large. Wheat and feed grain participation, as a proportion of total U.S. production, was considerably less. Wheat producers enrolled 37.0 percent of total U.S. wheat acreage, and corn producers enrolled 23.5 percent of total U.S. corn acreage.

While wheat participation was low in proportion to U.S. wheat production, wheat nevertheless accounted for 44.0 percent of total program acreage. Corn accounted for the second largest program acreage with 26.0 percent of total program acreage. Cotton was third in quantity of program acreage.

The Plains States' farmers dominated commodity program participation in 1982, accounting for 52.0 percent of all participating producers. The North Central and Southern States accounted for the bulk of the remaining participating producers with 29.0 and 12.0 percent of producers, respectively. The Northwest, Southwest, and Northeast together constituted less than 7.0 percent of total program participants.

Farm Size Distribution

Farmers operating farms with total cropland of less than 140 acres accounted for approximately 50.0 percent of the producers participating in the commodity programs. Producers operating farms with 2,500 or more acres of total cropland, accounted for less

than 1 percent of all participants. Small producers, participating in much greater numbers, also participated more intensely than did large producers. Producers with less than 70 acres total cropland enrolled nearly 45.0 percent of their cropland, in one or more programs, whereas producers with more than 2,500 acres total cropland enrolled about 37.0 percent of their cropland.

Payment Distribution

Direct payments exceeded $1.8 billion in program year 1982. Deficiency payments accounted for $1.7 billion and disaster payments accounted for $118 million. Average direct payment per producer was $3,297. Regionally, the Plains States captured 52.0 percent of total payments. Plains producers on average received $3,278 per producer. The Southern States collected 20.0 percent of direct payments. Southern producers received on the average $5,476 each. The North Central States were third in payments received, with 14 percent of total direct payments. The Southwest followed with 9 percent of program payments. Southwest producers, however, received the highest average payment per producer ($12,504), whereas North Central producers received the lowest ($1,605). Northwest and Northeast producers combined received less than 5 percent of total direct payments.

Producers in Arizona ($27,040), California ($15,690), and Mississippi ($11,100) received the highest average payment per producer. Maine ($228), New Hampshire ($241), and Massachusetts ($303) received the lowest average payment per producer. Texas producers received more than 25 percent of total direct payments.

The 1982 distribution of direct payments generally shows that large producers received a disproportionate share of program benefits relative to small producers. Midsized producers received roughly proportional payments per producer. Comparisons among direct payment distributions by commodity show cotton to be the most concentrated among large producers and barley to be the least. Among the grain commodities, wheat payments were the most concentrated, followed by sorghum, corn, and barley.

Indirect Benefits

Total indirect benefits—benefits producers realize, not in direct payments, but due to increased commodity prices—to participating producers in the price support programs (excluding rice) were estimated to be $6.3 billion in 1982. A comparison of total direct and indirect benefits reveals that indirect benefits exceeded direct benefits by more than 400 percent. As with direct benefits, large producers received a disproportionate amount of total indirect benefits.

Costs of Participation

The estimated 1982 opportunity costs—costs averted and income foregone—for participating in the price support programs was $831 million or 54.0 percent of direct payments. On average, producers of corn and oats received less direct payments than they paid in

opportunity costs. Conversely, cotton producers' direct benefits exceeded the cost of participating in the program by 400 percent.

Net benefits to participating producers, calculated as direct benefits plus indirect benefits less opportunity costs, were estimated to be $7.053 billion for 1982.

Benefits Over Time

In order to assess the impact of Federal commodity programs over time, the results of this study were compared to a similar study of the 1978 farm programs. It was found that 1978 producer participation was 33.0 percent greater than program year 1982; and nominal 1978 direct payments were greater than 1982 payments by 11 percent.

The farm size distribution of farm program participants has shifted toward larger farm operations since 1978. The increased impact of the payment limitation, however, has kept the distribution of benefits virtually constant. Net benefits of participating in the commodity programs increased dramatically, principally because of the enormous increase in indirect benefits. Moreover, opportunity costs declined considerably.

Conclusion

The 1982 distribution of direct benefits from the wheat, feed grains, cotton and rice programs closely reflected production distribution. Hence, in their present form the commodity programs are less effective in raising the incomes of smaller producers than stabilizing prices for all producers. Moreover, indirect benefits greatly exceeded direct benefits to particpating producers, indicating that other farm policy tools, such as the Farmer Owned Reserve, were perhaps more important in determining net farm income in 1982 than were direct program payments.

While the relative distribution of program benefits was unchanged since 1978, the distributional impact of the commodity programs was not. Rather, both participants' absolute farm size, and Federal payments as a proportion of net farm income has increased since 1978. Therefore, larger farms as a group are receiving larger program benefits than before, and the distribution of Federal payments, is more likely to be reflected in the distribution of net farm income.

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INTRODUCTION

U.S. farm income policy traditionally has stressed aggregate income maintenance and enhancement. Less emphasis has been placed on the distribution of farm income. Rising agricultural program costs, with direct impact on the U.S. Treasury and indirect impact on consumers, coupled with the changing structure of agriculture have amplified interest in the distribution of farm income. Moreover, the impacts of price and income support programs (commodity programs) on farm income distribution are particularly forceful when, as recently, farm income has been depressed and Federal benefits have been large relative to net farm income. For example, commodity programs costing $11.6 billion in fiscal 1982 exceeded 50 percent of 1982 net farm income; fiscal 1983 commodity program expenditures reached $18.8 billion and, excluding the value of in-kind commodities, approximated 80 to 90 percent of 1983 net farm income.[1]

Farm income policy is implemented principally through the Agriculture Stabilization and Conservation Service's commodity programs. Program eligibility is limited to producers willing to participate in acreage reductions in specific program crops. The acreage reductions (along with the Farmer Owned Reserve—FOR) constitute the Federal Government's primary farm price and income stabilization tools.

Because income policy and price stabilization policy are jointly conducted through the ASCS commodity programs, the income distribution of commodity program benefits cannot be considered exclusive of the price stabilization mechanism. In order for the stabilization aspect of the commodity programs to effectively control supply and thereby prices, large farms with their corresponding large production must be induced to participate in the production control programs. Implicit in the need to attract large producers, however, is the corresponding (and generally accepted) need to distribute participation benefits according to output. In contrast, income enhancement policy is intended to benefit the neediest producers, who are not typically the most productive or largest producers.

In addition to the difficulty of sorting out diverse policies within common programs, an analysis of farm payments distribution is aggravated by the lack of particular farm income statistics. Agricultural Stabilization and Conservation Service (ASCS) data, for example, do not include any income statistics other than production fig-

[1] Figures are Commodity Credit Corporation (CCC) net expenditures for fiscal years 1982 and 1983. For a discussion of farm program cost concepts see appendix B.

ures for program crops. Moreover, national farm income statistics do not generally include income distributions by income class.

To surmount these difficulties this study, made two adjustments. First, to construct the 1982 distribution of farm payments, farm size was used as a proxy for income. (For further discussion of farm size proxy see Definitions and Procedures, p. 5.) Second, to determine the distributional impact of commodity programs, the 1982 farm size payments distribution was compared to the 1978 farm size payments distribution, rather than to a distribution of 1982 farm income. While it is impossible, therefore, to tell the absolute impact of commodity programs on the distribution of farm income, it is possible, nevertheless, to surmise the direction in which the impact of Federal programs is moving.

The farm size distribution of deficiency and disaster payments was measured from the 1982 ASCS program participants data files for each program commodity. Changes in the distribution of program benefits over time were estimated by comparing the 1982 program distribution results with a similar previous USDA study, "Farm Commodity Programs: Who Participates and Who Benefits?"[2] The USDA study reported the 1978 farm size distribution of commodity program benefits. In addition to the payments distribution analysis, the participation distribution and indirect benefits of commodity programs were estimated.

The first section of this paper describes the controlling farm program legislation for program year 1982. A discussion of procedures and data is also included in part I. Part II summarizes participation data derived from the 1982 ASCS farm and producer files. Part III analyzes the payment distributions of farm program benefits by farm size, region, and crop. Part IV examines the distribution of net program benefits. Part V concludes this report with a comparison of the distribution of farm program benefits over time.

[2] William Lin, James Johnson and Linda Calvin, Economic Research Service (ERS), USDA, 1981.

Part I.—BACKGROUND FOR ANALYSIS

Controlling Legislation

Historically, farmers have benefited from farm programs both directly through receipt of Government payments and indirectly through higher commodity prices due to price support programs; under the Agriculture and Food Act of 1981, as amended, the farm commodity programs remain fundamentally unchanged.[1]

For the purposes of this analysis, direct Government payments (direct payments) include deficiency and disaster payments.[2] Deficiency payments are Federal cash payments made to producers who participate in the crop commodity programs of the Agricultural Stabilization and Conservation Service (ASCS). Participating farmers are paid "deficiency payments" for eligible program commodities when commodity prices fall below the mandated target price. The legislated deficiency payment rate is the target price minus the higher of: (1) the legislated loan rate or (2) the national 5-month (calendar year for cotton) average market price. Minimum target price levels were established in the 1981 act for program crops including corn, wheat, upland cotton, and rice. Grain sorghum and oats target prices were not legislated but are tied to corn levels. The barley target price is set at the discretion of the Secretary of Agriculture.[3] See table 1 for 1982 program rates and prices.

Low-yield and prevented planting program payments, hereafter, disaster payments, are disbursed primarily in areas where Federal crop insurance is unavailable and to some other limited regions (particularly Texas in 1982). Eligible producers are paid one-half of the target price (one-third for cotton and rice) for any shortfall between actual production and 60 percent (70 percent for cotton and rice) of expected program production. Production receiving disaster benefits is ineligible for deficiency payments.

[1] For a detailed discussion of the 1981 farm bill see Johnson et al., "Provisions of the Agriculture and Food Act of 1981", USDA, ERS, National Economics Division (NED) Staff Report No. AGES811228, January 1982.

[2] Typically direct payments also includes prevented planting payments. Calculation of prevented planting payments, however, are not possible from the ASCS farm record and are therefore not included here. The magnitude of prevented planting payments in 1982 was, however, very small and constituted only $1.1 million of $1.819 billion in direct Federal payments. CCC loans and storage payments for FOR are also not included. Storage payments are service oriented and loan and storage payment data were not available at the producer level. Diversion payments were not made in 1982.

[3] Nonrecourse loans are the principal instrument of the price support programs. Eligible producers may borrow against the value of their program crops under the nonrecourse loan program. Loans are "nonrecourse" because producers may default without penalty if market prices fall below loan rates by merely transferring title of their collateral crops to the Federal Government. Nonrecourse loan rates for wheat and feed grains were also legislated in the 1981 act, while the mechanism for determining cotton and rice loan rate levels remains unchanged from the 1977 act.

TABLE 1.—1982 CROP PROGRAM RATES AND PRICES

Crop	Target price	Loan rate	Average market price	Deficiency payment rate	Low yield rate	Reserve loan rate	Acreage reduction
Wheat (bushel)	$4.05	$3.55	$3.45	$0.50	$2.03	$4.00	0.15
Corn (bushel)	2.70	2.55	2.55	.15	1.35	2.90	.10
Sorghum (bushel)	2.60	2.42	2.30	.18	1.30	2.75	.10
Barley (bushel)	2.60	2.08	2.20	.40	1.30	2.37	.10
Oats (bushel)	1.50	1.31	1.68	.00	.75	1.49	.10
Cotton (pound)	.7100	.5708	.576	.1392	.2366	N/A	.15
Rice (pound)	.1085	.0814	.08	.0271	.0362	N/A	.15

Note.—Data for this table were obtained from USDA, "CCC President's Budget Estimates"; ASCS, Budget Division; January 6, 1984 and July 15, 1983.

Payment limitations affect both direct payments and disaster payments. Payment limitations are intended to both mitigate inequality in farm program benefits across income groups, and reduce Federal expenditures. Under the 1981 act, payment limitations for the 1982 program year were $50,000 for total deficiency and diversion payments per producer, and $100,000 for total disaster payment per producer. Payment limits do not apply to State agencies or State-owned land furthering a public function, nor do they affect CCC loans or purchases.

Advance producer payments were introduced in 1982 through amendments to the 1981 farm bill in the Omnibus Budget Reconciliation Act (OBRA) of 1982. OBRA provided that producers be paid 70 percent of their expected deficiency payments as soon after October 1, 1982, as was practicable. Actual advance payments accounted for 57 percent of total payments.

In contrast to direct payments, indirect farm program benefits accrue to all producers of the program commodities through higher commodity prices. The Federal Government affects prices received by the farmer (and prices paid by the consumer) principally by restricting supply through acreage reductions (ARP), set-asides, paid and voluntary land diversions, a farmer owned wheat and feed grain reserve (FOR), and the nonrecourse loan programs.[4] By restricting supply, the Government seeks to establish a price floor under program commodities at the legislated CCC loan rate. For 1982, no paid land diversion or set-aside was in effect. The ARP requirement was 15 percent for wheat, cotton, and rice, and 10 percent for feed grains.

[4] The FOR is essentially a 3- to 5-year nonrecourse commodity loan program encouraging long-term producer-held storage. The FOR is effective in reducing supplies already harvested, at times when commodity prices are low. ARP, set-aside and land diversion programs directly reduce commodity production by reducing planted acreage. Acreage reductions are commodity specific limits upon planting imposed through proportional reductions of a participating producer's established acreage base. Alternatively, set-asides are reductions based upon current plantings and are generally farmwide, not commodity specific, enabling substitution between program crops.

Definitions and Procedures

The designation of farm unit size in the ASCS record files is established based on the exclusivity of management, machinery, cropping practices, accounting system, and other business practices. Frequently, more than one producer may be associated with an individual ASCS farm or, alternatively, a single producer may own or operate multiple ASCS farms or portions thereof. Such circumstances, farms with multiple producers and producers with multiple farms, arise through partnership or lease arrangements or other ownership conventions.

In order to reasonably attribute actual resources to individual producers, some measurement other than the ASCS designation for farm size had to be developed. Accordingly, two farm size proxies were calculated from the merged 1982 *farm record* and *producer record* files, which attributed all production associated with an individual producer identification (ID) to a single farm unit. ASCS *farm record* file statistics summarize production data for participating or historical ASCS designated farms. These statistics include total cropland, reported planted acreage, acreage base, program yield, and an eligibility code. The ASCS *producer record* file, which summarizes producer associated production, includes production share proportions and low-yield eligible production. The farm and producer record files were correlated by farm and producer ID numbers contained within the two ASCS files. The two farm size proxies developed in lieu of ASCS farm size designation were total acreage base and total cropland.

Total acreage base (TAB) is the sum of individual commodity acreage bases (CAB) on an individual ASCS farm. As specified in the Agriculture and Food Act of 1981, each commodity base is determined to be higher of either the previous year's actual planting (including set-aside acreage) or the average of the two previous year's actual plantings. This study's TAB farm size proxy was calculated by multiplying the producer's proportion of production from the ASCS producer record by program acreage from the ASCS farm record, and summing across all commodities and all occurrences of a unique producer's ID.

The TAB farm size proxy is similar to the normal crop acreage (NCA), which is the Federal program allocation figure when a set-aside program is in force. The Lin, et al., study (see part VI for comparison between 1978 and 1982 programs) used NCA as its farm size proxy. Although NCA may vary from year to year, both 1978 NCA and 1982 TAB include wheat, field corn, barley, oats, grain sorghum, upland cotton, and rice. The 1978 NCA additionally includes rye, soybeans, flax, dry edible beans, sunflower, sugar beets, and sugar cane. Some States also added one or more of potatoes, sweet corn, peas, safflower, popcorn, and millet.

Total cropland (TCL) figures are measured by ASCS for each ASCS farm from aerial photographs, and are recorded on the ASCS farm record. The TCL farm size proxy was calculated by first multiplying producer share by each individual crop acreage base (CAB) associated with an individual producer. The proportional produc-

tion was then multiplied by a factor of TCL/TAB. All crop acreage for a unique producer was then summed together. The TCL farm size proxy, therefore, represents the producer's proportional share of total cropland (as reported on the ASCS farm record) for all of his associated ASCS farms.[5]

An example may help illustrate the differences between the various farm size designations. Consider a hypothetical corn and soybean farm owned and operated by father and son:

Soybean acreage = 100 acres
Corn acreage base = 100 acres
Total acreage base = 100 acres
Total cropland = 200 acres
Producer share = 50-50

ASCS farm size for this example would be 200 acres total cropland or 100 acres total acreage base. TAB farm size proxy is the sum of acreage bases for program crops for an individual producer and for this example both producers would have 50 acres of TAB. (100 acres corn CAB $\times$ 0.5 producer share = 50 acres TAB.) TCL farm size proxy would be 100 for both father and son. (100 acres corn CAB $\times$ 0.5 producer share $\times$ 2.0 TCL/TAB ratio = 100 acres TCL.)

Payment data are not recorded on the ASCS farm or producer records. Hence payments were estimated using reported plantings and program yields. Payments to producers are identical for both TAB and TCL farm size proxies because program crop acreage is identical under both measures. Payments were calculated by multiplying program yield by a producer's planted acreage and then by the appropriate deficiency payment rate. This procedure was repeated for each commodity associated with a unique farm ID and for all farms associated with a unique producer ID.

Low-yield payments were determined by multiplying eligible low-yield volume of production by producer share and then by the appropriate low-yield payment. Production associated with disaster payments was then subtracted from production eligible for deficiency payments to avoid double payment.

The computation of total direct payments also required application of the payments limitation. Only deficiency payments were affected, however, as no producers reached the disaster payment ceiling of $100,000. In order to estimate the effects of the payment limitation, direct payments were first computed for each producer as if the limitation had not been in effect. Then, all payments in excess of the limit were identified and the assigned payments were reduced to the maximum allowable level. Once deficiency payment limits were applied, payments to producers exempt from the payment limit were not added back, due to privacy restrictions. Ninety-four producers were exempt from the ceiling, however, less

[5] The determination of TCL farm size proxy here assumes identical ownership proportions for individual producers for both program and nonprogram cropland.

than 40 exceeded the $50,000 limit. The understatement of payments ranges between $1.25 and $3.2 million.

While the 1982 distribution of payments to both TCL and TAB farm size proxies were evaluated, TCL better represents total resources committed to the farming enterprise by the producer, and hence, better represents the producers' income capacity or potential. The discussion of total payments distribution therefore emphasizes the TCL farm size proxy. (TAB data and tables may be found in appendix A.)

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Part II.—1982 PROGRAM PARTICIPATION

Participation data were derived from the 1982 ASCS farm and producer record files which contain 1982 program year participation and production data for all producers enrolled in ASCS commodity programs. The 1982 program year nearly corresponds to fiscal year 1982, though program year varies somewhat between crops.[1]

TABLE 2.—1982 ASCS PARTICIPATION SUMMARY BY COMMODITY AND REGION

[Producers and acreage in thousands] [1] [2]

Region	Wheat	Corn	Barley	Sorghum	Cotton	Rice	Oats	Total [3]
Northwest:								
Producers	15.7	0.3	7.7	.....	.....	.....	1.0	18.1
Acreage	2,602.4	15.2	710.0	.....	.....	.....	24.5	3,352.2
Southwest:								
Producers	4.4	.7	1.6	1.5	5.6	2.3	.3	13.0
Acreage	776.4	57.4	180.2	208.6	948.3	362.8	11.6	2,545.2
Plains:								
Producers	180.3	62.0	22.6	82.6	51.9	2.5	18.1	289.4
Acreage	25,583.5	6,325.7	2,021.1	5,601.6	5,670.8	409.1	785.1	46,396.9
North Central:								
Producers	41.5	131.0	4.7	5.5	2.1	.4	5.7	157.7
Acreage	2,432.6	11,723.9	423.5	222.7	122.9	48.3	153.2	15,127.1
South:								
Producers	14.9	19.9	.7	3.8	22.9	18.8	.8	68.1
Acreage	822.7	748.9	14.7	150.2	2,227.4	1,654.6	13.7	5,632.1
Northeast:								
Producers	2.0	4.9	.4	.1	.....	.....	1.5	6.2
Acreage	67.1	404.6	9.3	1.2	.....	.....	40.8	522.9
Total:								
Producers	258.8	218.8	37.7	93.5	82.4	24.0	27.4	[3] 552.4
Acreage	32,284.7	19,275.5	3,362.5	6,184.4	8,969.5	2,474.8	1,029.2	73,580.8

[1] Acreage in table refers to reported planted acreage.
[2] Numbers may not add to totals due to rounding.
[3] Unduplicated count of producers.

In 1982, of the more than 2 million U.S. farms, 471,909 farms, operated by 552,438 producers, participated in the commodity programs and were thereby eligible to receive direct Government payments.[2] (See table 2.) Producers of wheat, feed grains, rice, and

[1] Crop years for corn and sorghum begin October 1; wheat, barley, and oats crop years begin June 1; cotton and rice crop years begin August 1.
[2] Figures were generated directly from ASCS participation data. See part I. Procedures and Model Error Data, appendix table 1.

upland cotton enrolled 111.520 million base acres and reported planted 73.581 million acres. With total U.S. cropland (1.039 billion acres [3]) in 1982 nearly 10 times program base acreage, participating farms and their associated acreage constituted a distinct minority of total U.S. farms and U.S. planted acres.

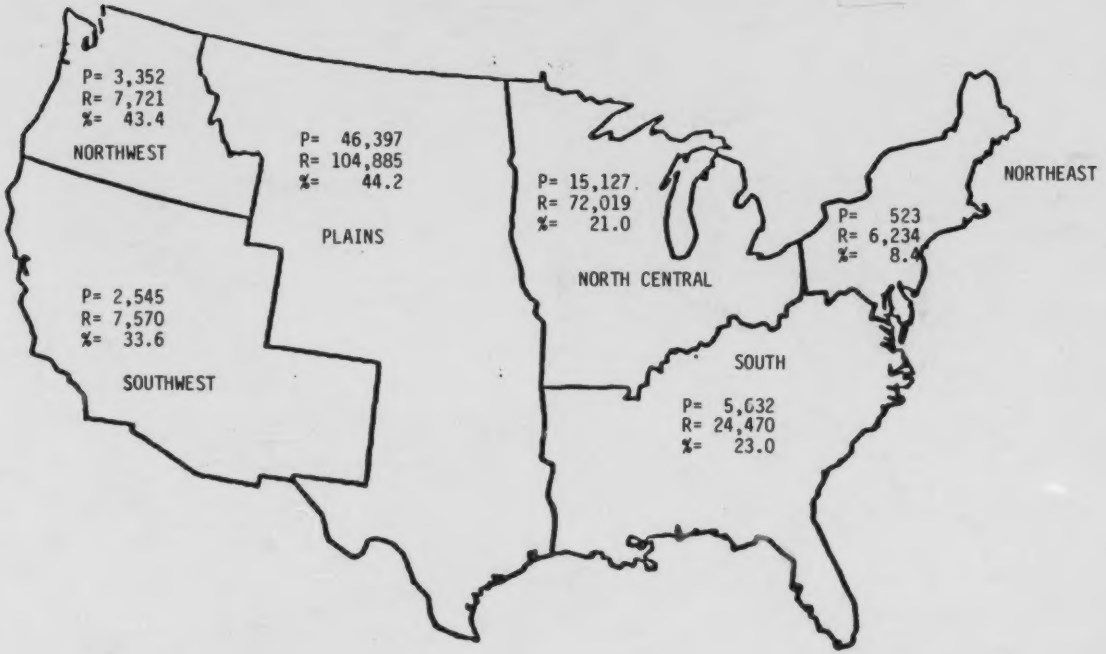
Nationally, cotton producers participated most heavily in the commodity programs with 79.6 percent of all planted cotton acres participating. (See figure 1.) Rice participation was nearly as large with 75.3 percent of all planted acres enrolled in the rice program. Proportional participation in the wheat and feed grain programs was considerably less, with wheat participation 37.0 percent of all U.S. planted acres, barley 34.9 percent, sorghum 38.3 percent, corn 23.5 percent, and oats only 7.2 percent of total U.S. planted acreage. (For regional participation rates see figure 1.)

[3] *Agricultural Statistics*, 1983 USDA.

FIGURE 1A.—NATIONAL

PARTICIPATION BY ACRES REPORTED PLANTED

[Acres in thousands]



US - national acreage

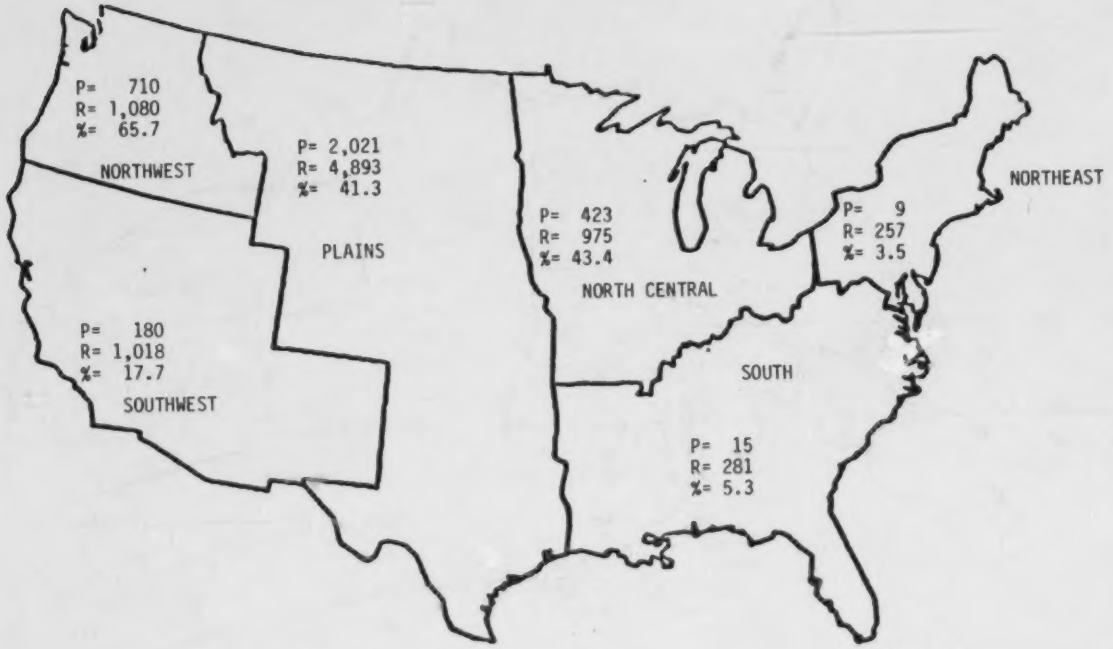
R - regional acreage

P - participating acreage

FIGURE 1B.—BARLEY

PARTICIPATION BY ACRES REPORTED PLANTED

[Acres in thousands]

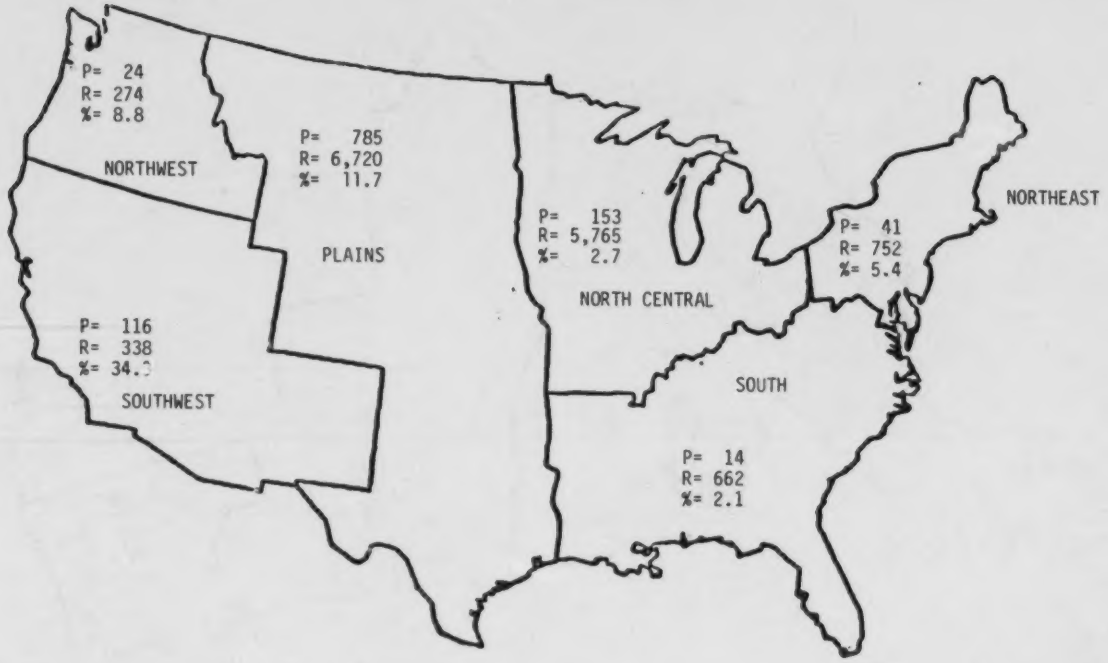


US= 9,634 P= 3,362 %= 34.9

FIGURE 1C.—OATS

PARTICIPATION BY ACRES REPORTED PLANTED

[Acres in thousands]



US= 14,211 P= 1,029 %= 7.2

Regional Participation Distribution

Participation in the 1982 commodity programs was dominated by the Plains States with 289,443 participants or 52.0 percent of all participating producers. (See figure 2.) Within the Plains region, wheat was the principal program crop with 180,000 producers and reported plantings of 25.6 million acres.[4] (See figure 1 for ASCS regions used in this report.) The grain sorghum program enrolled the second largest number of producers (82,632) but corn producers (61,976) planted the second largest acreage, 6.3 million acres corn compared to 5.6 million acres of grain sorghum. (See figure 3.) Plains producers reported planted 46.937 million total program acres.

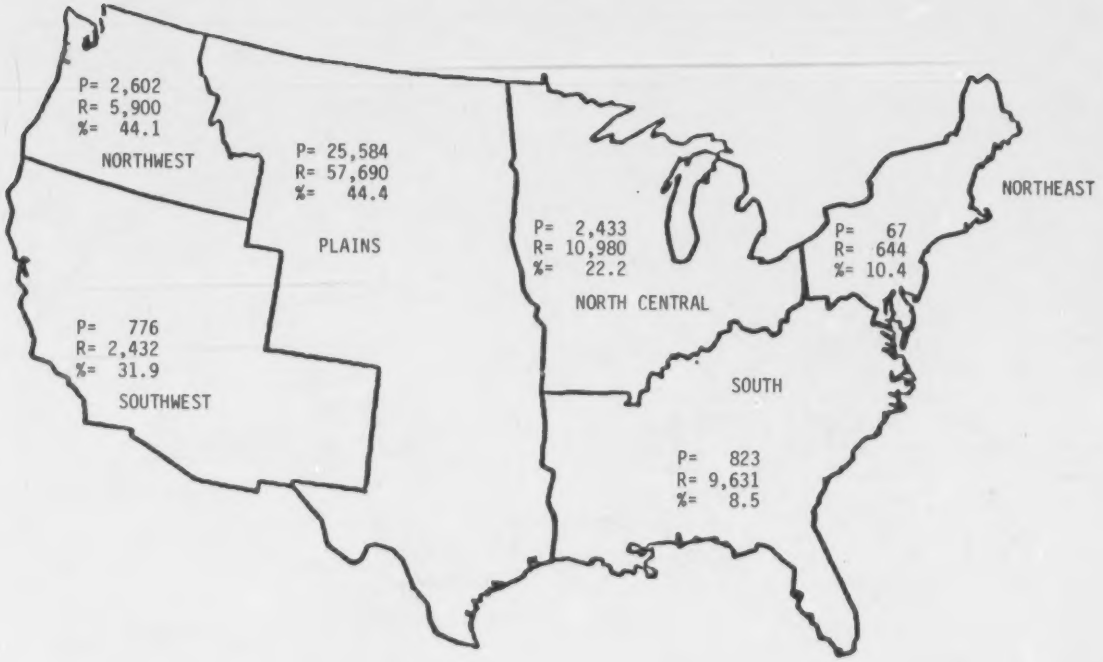
The North Central and Southern States accounted for the bulk of the remaining participating producers with 157,666 or 29 percent, and 68,053 or 12 percent of producers respectively. The sum of the participating producers from the Plains, North Central, and Southern regions exceeded 93 percent of total participating producers.

[4] Unless otherwise specified, acreages reprted in this section are reported planted figures.

FIGURE 1D.—WHEAT

PARTICIPATION BY ACRES REPORTED PLANTED

[Acres in thousands]



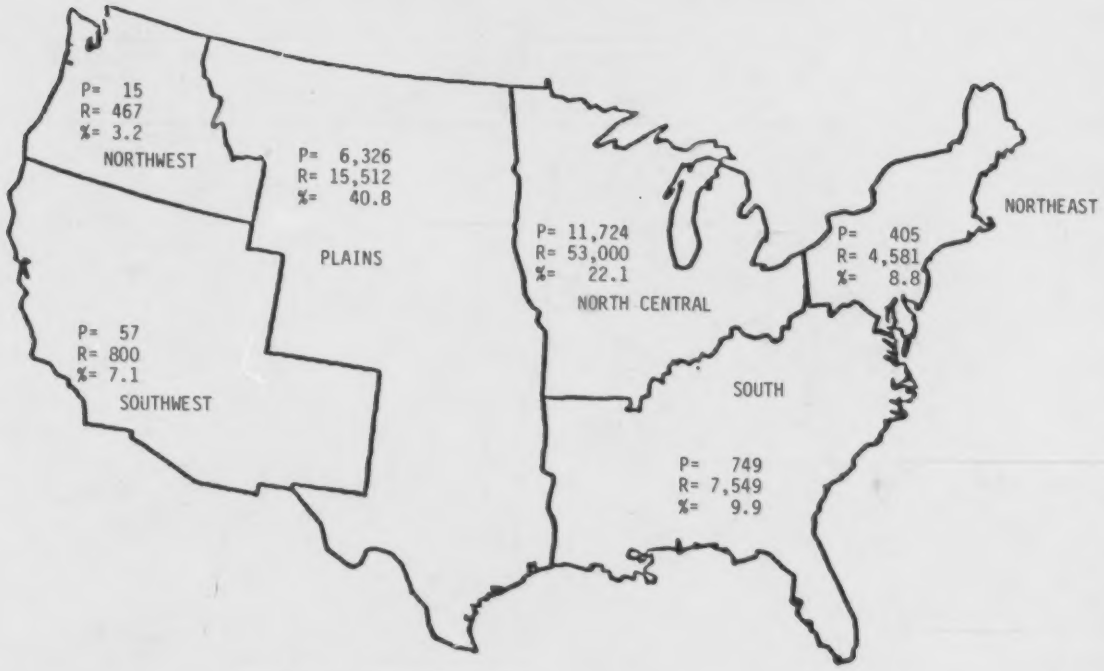
US= 87,277 P= 32,285 %= 37.0

36-494 O - 84 - 4

FIGURE 1E.—CORN

PARTICIPATION BY ACRES REPORTED PLANTED

[Acres in thousands]

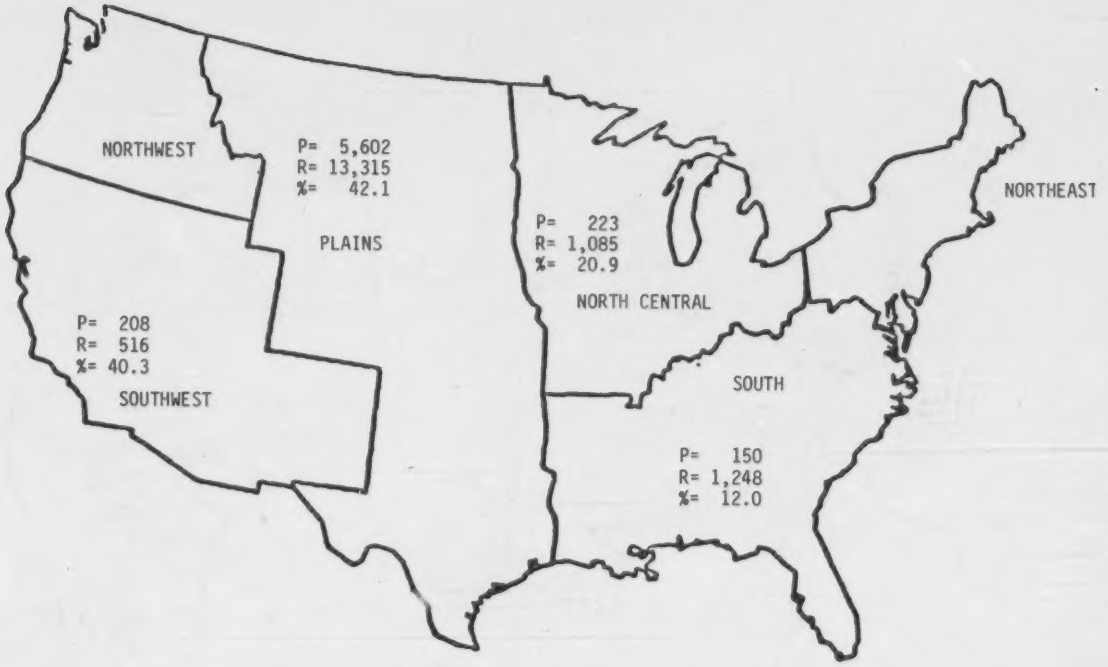


US= 81,909 P= 19,276 %= 23.5

FIGURE 1F.—SORGHUM

PARTICIPATION BY ACRES REPORTED PLANTED

[Acres in thousands]

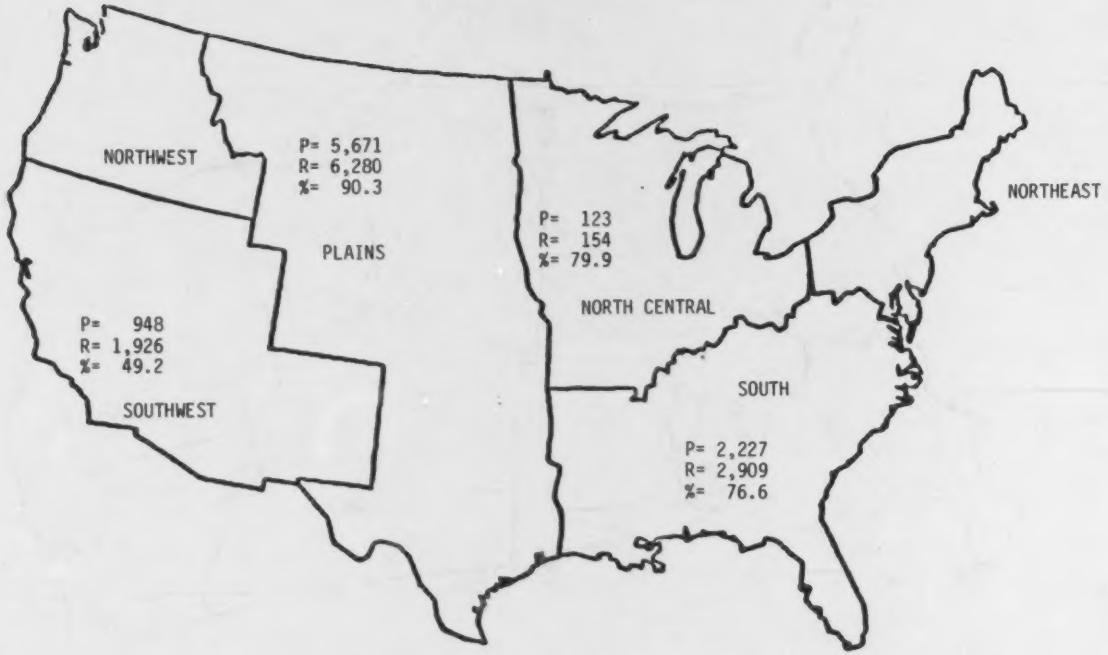


US= 16,144 P= 6,184 %= 38.3

FIGURE 1G.—COTTON

PARTICIPATION BY ACRES REPORTED PLANTED

[Acres in thousands]

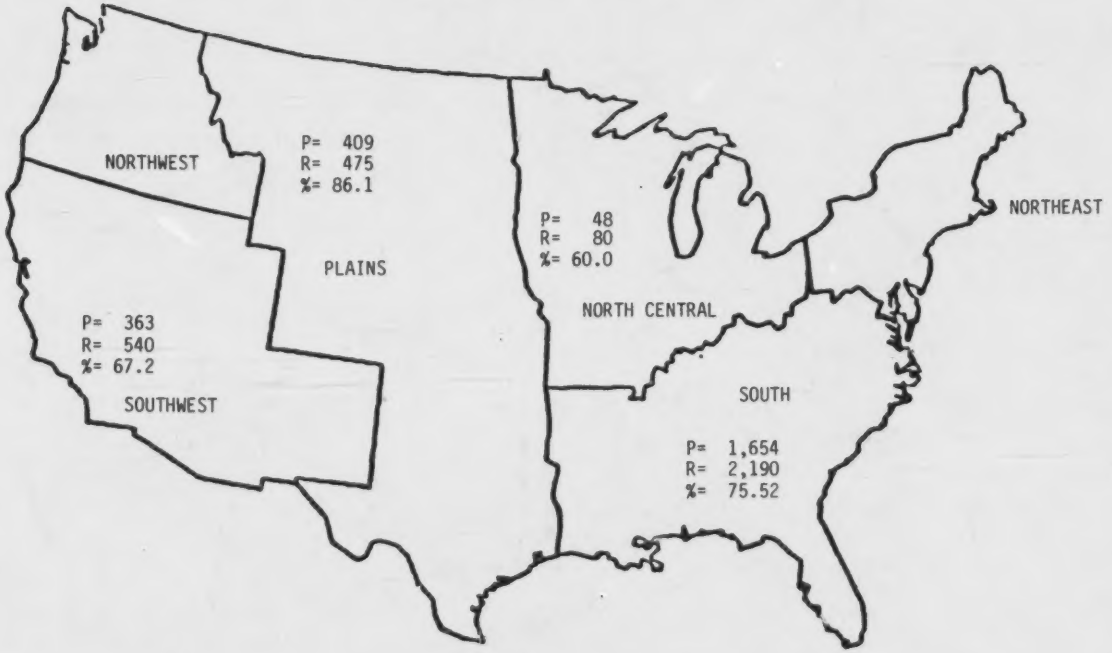


US= 11,269 P= 8,970 %= 79.6

FIGURE 1H.—RICE

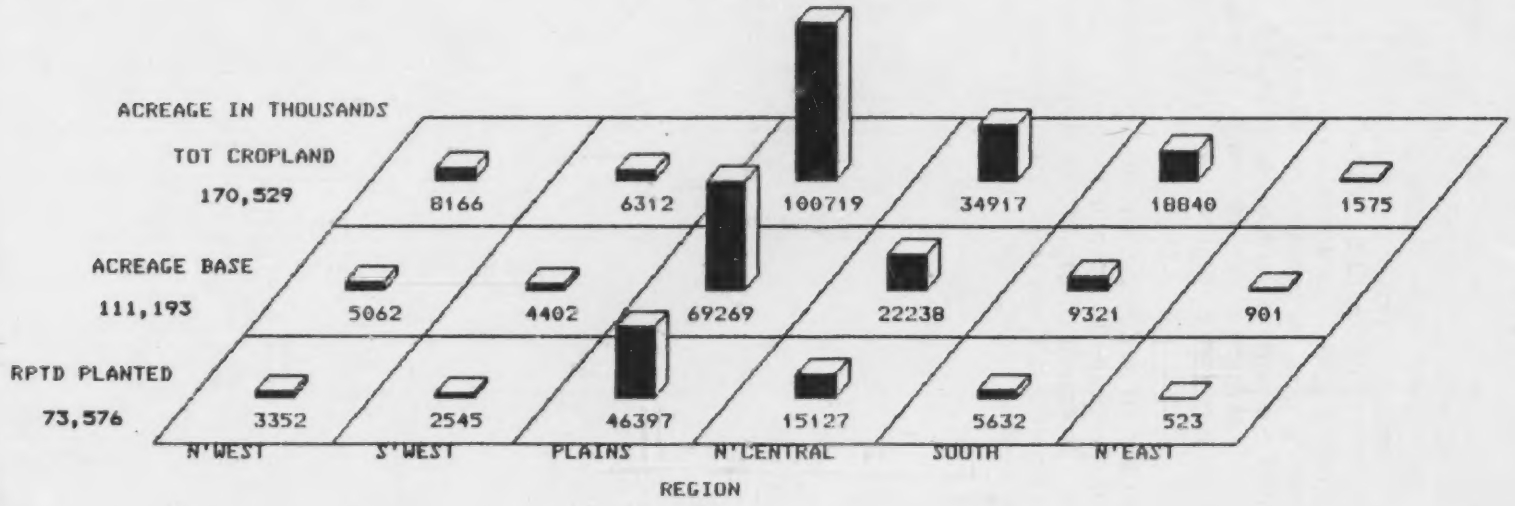
PARTICIPATION BY ACRES REPORTED PLANTED

[Acres in thousands]



US= 3,285 P= 2,475 %= 75.3

FIGURE 2.—1982 PARTICIPATION: REPORTED PLANTED, ACREAGE BASE AND TOTAL CROPLAND



In the North Central States, corn was the principal program crop with 131,000 producers and 11.7 million acres enrolled. Secondary crops, in descending order of acreage, where—wheat, with 2.4 million acres and 41,500 producers; barley, with 0.4 million acres and 4,713 producers; and oats and sorghum each with about 5,500 producers and combined 0.4 million planted acres. In the South, cotton was king with 2.2 million program acres planted and 22,941 producers. Rice was second with an enrollment of 1.65 million acres and about 19,000 producers. Wheat and corn accounted for an additional 1.5 million program acres planted. North Central producers surpassed southern producers in reported planted acreage, 15.127 million to 5.632 million acres, respectively.

The Northwest with 18,067 producers (3 percent), the Southeast with 13,002 producers (2 percent), and the Northeast with 6,193 producers (1 percent) together constituted less than 7 percent of total program participants. Principal crops for the regions were wheat and barley for the Northwest, cotton and wheat for the Southwest, and corn for the Northeast. Total reported planted acres were 3.352 million for the Northwest, 2.545 million for the Southwest, and 523,000 for the Northeast.

Crop Distribution

Nationwide, wheat attracted the greatest program participation with 32.3 million acres or 44 percent of the total reported planted acreage. An estimated 258,689 producers participated in the wheat program. (See table 3 and figure 4.) Corn accounted for the second largest program acreage with 19.2 million acres or 26 percent of total reported planted program acreage and 218,766 participants enrolled. Cotton was third with 9 million acres and 82,446 producers. Then in succession came grain sorghum with 6 million acres reported planted and 93,519 producers, barley with 3.3 million acres and 37,669 producers, rice with 2.5 million acres and 24,027 producers and lastly, oats with 1 million acres and 27,448 participating producers.

Farm Size Distribution

Farmers operating small farms, those with total cropland [5] of less than 140 acres, accounted for approximately 50 percent of the producers participating in the commodity programs (wheat, feed grains, rice, and upland cotton). Conversely, these same farmers operated only about 10 percent of program associated total cropland. (See figure 5 and table 3.)

On the other hand, producers operating the largest farms, those with 2,500 or more acres of total cropland, accounted for less than 1 percent of participants but controlled 11.58 percent of total cropland. Moreover, the top decile of largest producers, as determined by total cropland (TCL), held about 45 percent of total cropland whereas the smallest third of all producers held less than 4 percent.

Not only did small producers participate in much greater numbers than did large producers, they participated more intensely as well. Producers with TCL of less than 70 acres enrolled nearly 45 percent of their total cropland in various commodity programs. Alternatively, the largest producers with more than 2,500 acres, enrolled about 37 percent of total cropland in one or another program. The distribution by other farm sizes follows:

Proportion of program acres per total cropland acres

Farm size (TCL):	*Percent*
0 to 69	44.96
70 to 139	44.03
140 to 219	43.58
220 to 259	43.40
260 to 499	44.02
500 to 999	44.34
1,000 to 1,499	44.20
1,500 to 1,999	43.62
2,000 to 2,499	42.78
2,500 plus	36.69

[5] Farm size distribution figures represent total cropland (TCL) farm size proxy in contrast to the preceding reported planted figures for crop and regional distributions.

Of the seven program crops in 1982, barley producers had the greatest proportion of large farms. Nearly 17.4 percent of barley producers operated farms totaling more than 1,000 total cropland acres. The total reported plantings of these large barley producers accounted for better than 47 percent of all reported planted barley acres. Cotton producers recorded the next highest proportion of large farms with nearly 16 percent of producers owning or operating farms of 1,000 acres or more. Large cotton producers claimed 37.1 percent of cotton reported planted acreage. More than 12 percent of oats producers operated farms exceeding 1,000 TCL acres. These producers reported planted nearly one-quarter of total oats reported planted acres.

Producers of wheat and rice operating more than 1,000 TCL acres constituted 9.4 and 9.1 percent, respectively, of wheat and rice producers; 6.9 percent of grain sorghum producers were large farmers. Reported planted acreage operated by producers with 1,000 acres or more was 43.8 percent for wheat, 37.8 percent for rice, and 31 percent for sorghum. Corn showed the least concentration of large farms with 3.7 percent of participating farms exceeding 1,000 acres total cropland. Large corn producers accounted for 17.7 percent of reported planted acreage.

Crop Composition

The crop composition of participating farms changes dramatically across farm size classes for wheat and corn. The smallest farms planted 21 percent less wheat and 22 percent more corn than the largest farms (see table 4). Proportional barley and sorghum planting were less differentiated across farm size classes: small producers reported planted 3.6 percent more sorghum and 6.6 percent less barley than did the largest producers. Cotton and rice producers devoted nearly constant proportional resources across farm size classes.

TABLE 4.—PERCENTAGE CROP COMPOSITION BY FARM SIZE CLASS

[Average program crop acreage as a proportion of total program acreage]

Farm size class	Wheat	Corn	Cotton	Sorghum	Rice	Barley	Total
0 to 69	36.49	31.75	13.63	11.56	4.13	2.35	99.9
220 to 499	38.27	36.38	8.6	8.86	3.41	4.47	99.9
550 to 1,500	49.55	19.79	12.28	7.79	3.94	6.64	99.9
2,500 plus	57.53	10.16	11.08	7.93	4.32	8.99	100.0

Note.—Total may not add to 100 due to rounding.

FIGURE 3.—1982 PRINCIPAL REGIONAL ASCS CROPS

REPORTED PLANTED

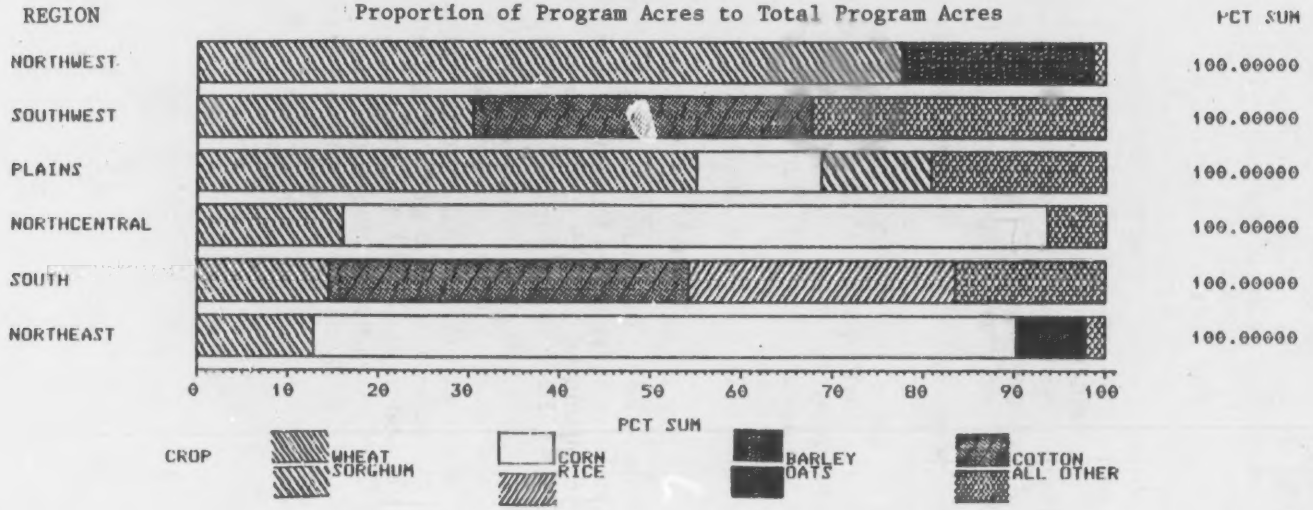


Table 3

1982 ACREAGE AND PRODUCER PARTICIPATION

[Acres are reported planted in thousands]

Farm size class[1]	Cotton		Rice		Barley		Sorghum		Wheat		Corn		Oats		Total program acres	Non program acres (est.)	Total TCL acres	Total producers
	Acres	Producers	Acres	Producers	Acres	Producers	Acres	Producers	Acres	Producers	Acres	Producers	Acres	Producers				
0–69	447	35,664	93	9,249	51	4,867	359	29,059	961	66,182	891	54,777	24	3,316	2,826	3,460	6,286	170,811
Percent	4.98	43.26	3.76	38.49	1.52	12.92	5.81	31.07	2.98	25.58	4.62	25.04	2.33	12.08	3.84	3.57	1.66	30.92
70–139	453	11,227	112	2,907	106	4,761	468	16,164	1,541	44,161	1,973	49,739	56	4,025	4,710	5,988	10,698	104,792
Percent	5.05	13.62	4.53	12.10	3.15	12.64	7.57	17.28	4.77	17.07	10.24	22.74	5.44	14.66	6.40	6.18	6.28	18.97
140–219	448	6,623	139	2,126	139	4,017	504	11,326	1,768	31,219	2,412	35,501	75	3,661	5,485	7,101	12,586	71,272
Percent	4.99	8.03	5.62	8.85	4.13	10.66	8.15	12.11	5.48	12.07	12.51	16.23	7.29	13.34	7.45	7.33	7.38	12.90
220–259	232	2,469	78	910	70	1,606	238	4,181	808	11,245	1,136	12,494	37	1,433	2,600	3,391	5,991	24,988
Percent	2.59	2.99	3.15	3.79	2.08	4.26	3.85	4.47	2.50	4.35	5.89	5.71	3.60	5.22	3.53	3.50	3.51	4.52
260–499	1,452	10,346	454	3,586	486	7,510	1,229	15,331	4,840	43,904	5,101	38,579	216	6,053	13,780	17,526	31,306	86,637
Percent	16.19	12.55	18.34	14.92	14.46	19.94	19.87	16.39	14.99	16.97	26.46	17.63	20.99	22.05	18.13	18.09	18.37	15.63
500–999	2,610	9,883	660	3,072	904	8,356	1,472	11,000	8,234	37,703	4,350	19,569	307	5,623	18,535	23,270	41,805	60,189
Percent	29.10	11.99	26.67	12.79	26.89	22.18	23.80	11.76	25.50	14.57	22.57	8.95	29.83	20.49	25.19	24.02	24.53	10.90
1,000–1,499	1,516	3,506	341	1,080	562	3,356	759	3,545	4,962	13,112	1,576	4,712	142	1,888	9,859	12,447	22,306	18,571
Percent	16.90	4.25	13.78	4.49	16.72	8.91	12.27	3.79	15.00	5.07	8.18	2.15	13.80	6.88	13.40	12.85	13.09	3.36
1,500–1,999	811	1,337	198	508	321	1,452	410	1,394	2,888	5,236	739	1,683	62	710	5,429	7,016	12,445	7,288
Percent	9.04	1.67	8.00	2.11	9.55	3.85	6.63	1.49	8.95	2.02	3.83	0.77	6.03	2.59	7.38	7.24	7.30	1.32
2,000–2,499	392	594	123	249	193	686	232	636	1,785	2,465	358	720	31	303	3,115	4,166	7,281	3,305
Percent	4.37	0.72	4.97	1.04	5.74	1.82	3.75	0.68	5.53	0.95	1.86	0.33	3.01	1.10	4.23	4.30	4.27	0.60
2,500+	607	757	275	340	531	1,058	514	883	4,496	3,462	738	992	80	436	7,241	12,495	19,736	4,585
Percent	6.77	0.92	11.11	1.42	15.79	2.81	8.31	0.94	13.93	1.34	3.83	0.45	7.77	1.59	9.84	12.90	11.58	0.83
Total	8,970	82,446	2,475	24,027	3,362	37,669	6,184	93,519	32,285	258,689	19,276	218,766	1,029	27,448	73,581	96,860	170,441	552,438

[1] Farm size class is designated by producer's TCL.

Note: Totals may not add due to rounding.

FIGURE 4.—1982 ASCS COMMODITY PARTICIPATION

PERCENTAGE OF TOTAL REPORTED PLANTED AND NUMBER OF PRODUCERS PARTICIPATING

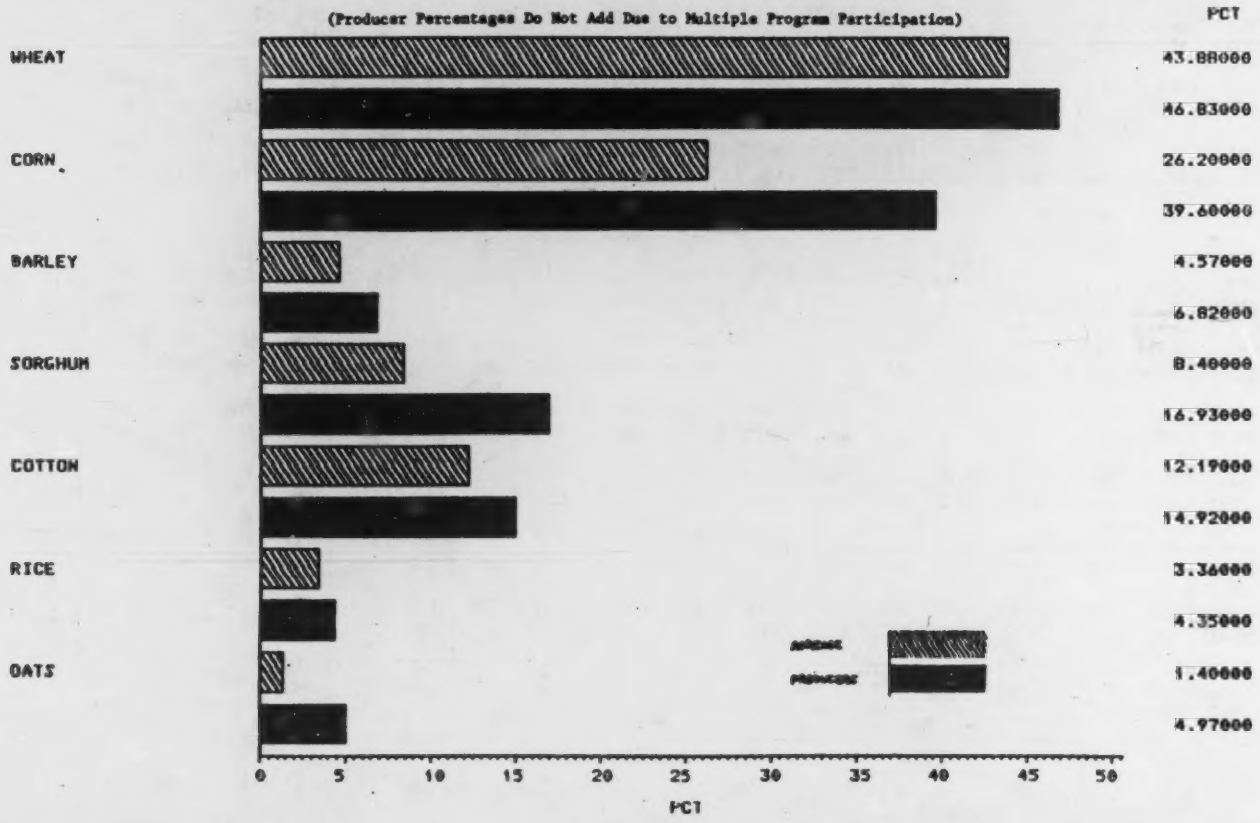
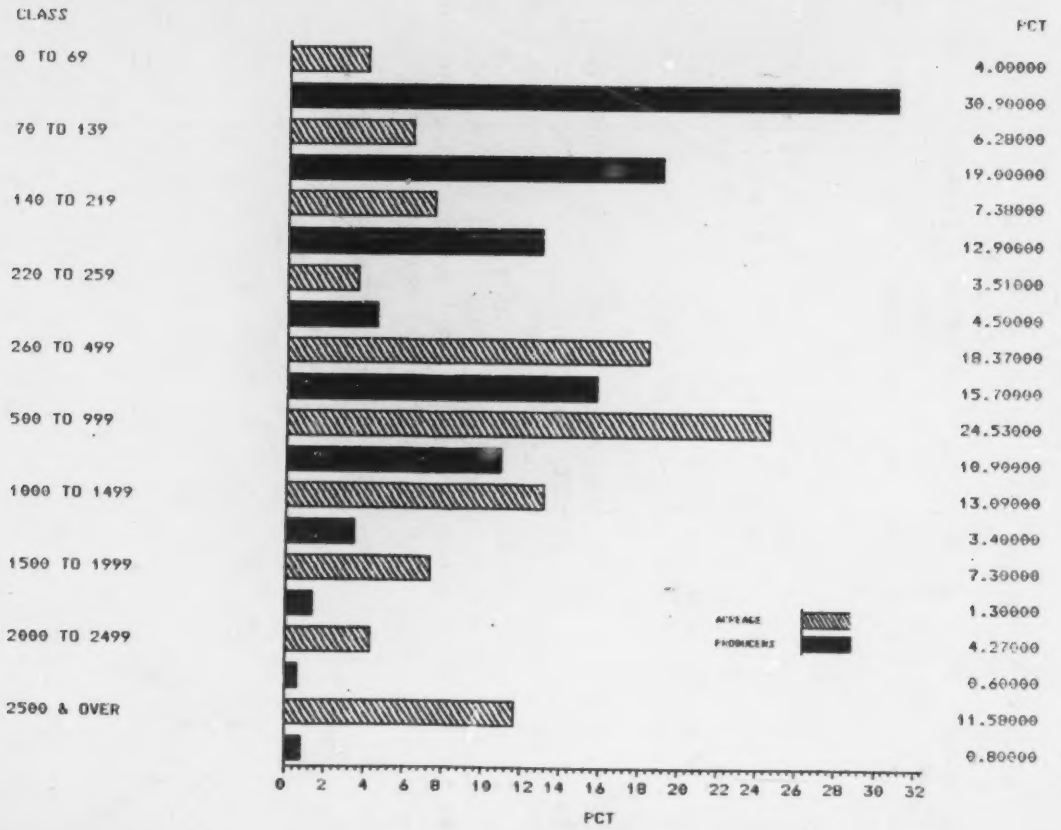


FIGURE 5.—PARTICIPATION DISTRIBUTION BY FARM SIZE

TOTAL CROPLAND AND NUMBER OF PRODUCERS



Part III.—1982 DIRECT PAYMENTS

Direct payments exceeded $1.82 billion in program year 1982. Deficiency payments accounted for $1.7 billion and disaster payments accounted for $118 million. Average direct payment per producer was $3,297.

Regional Payments Distribution

Regionally, the Plains States captured the largest portion of direct program benefits, with producers receiving $949 million or 52 percent of total direct payments. (See table 5.) Within the Plains region, cotton payments exceeded wheat payments slightly, with cotton producers receiving $359 million and wheat producers receiving $355 million. (See figure 6.) Corn farmers received slightly less than $100 million. Plains producers on average received $3,279 per producer.

The Southern States collected 20 percent ($373 million) of direct payments. Rice and cotton payments were nearly equivalent at $176 million and $173 million, respectively. Together, cotton and rice constituted almost 94 percent of the region's direct payments. Producers within the region received $5,476 per producer.

The North Central States posted the second highest participation for both planted acres and number of producers, and were third in payments received, collecting $253 million or 14 percent of direct payments. Corn producers were paid the predominant share of direct payments ($181 million). Wheat farmers received about $46 million. North Central farmers collected, on average, $1,605 per producer.

Nine percent ($162 million) of total direct payments were dispersed to Southwest producers. Nevertheless, the average payment per producer was $12,504, the highest in the country. Cotton and rice were the principal crops, with producers receiving $99 million and $44 million, respectively.

Northwest and Northeast producers combined received less than 5 percent of total direct payments. The Northeast received less than 0.5 percent. The Northwestern wheat farmers received most of that region's direct payments ($61 million) whereas corn producers in the Northeast were responsible for the bulk ($5.4 million) of that region's payments. Average payment in the Northeast was the lowest nationwide at $1,122 while the average payment for the Northwest was higher than the national average at $4,279.

State Payments Distribution

Producers in Arizona ($27,040), California ($15,690), and Mississippi ($11,100) received the highest average payment per producer. (See table 5.) Maine ($228), New Hampshire ($241), and Massachusetts ($303) received the lowest average payment per producer nationwide. Virginia ($435) received the lowest payment per producer outside of the Northeast region. Texas was sixth in payment per producer and yet Texas producers received more than 25 percent of total direct payments. Arkansas was a distant second largest recipient of total direct payments with 7.83 percent of total payments.

Crop Distribution

Of the seven program crops, cotton producers received the largest portion of total direct payments. Cotton deficiency ($538 million) and disaster payments ($102 million) totaled $640 million (see table 7). Cotton accounted for 35 percent of deficiency payments and 88 percent of disaster payments. Average payment to each cotton producer was $7,767.

Twenty-seven percent ($491 million) of total direct payments were disbursed to wheat producers of which 72 percent went to Plains farmers. Virtually all of the disaster payments not spent on cotton went to wheat producers. Average payment to each wheat producer was about $1,900.

Corn producers collected $292 million (16 percent) in direct payments. Ninety-five percent of corn payments went to producers in the North Central and Plains regions. The average producer payment was $1,333.

Rice was fourth in the payments received category with $270 million disbursed. Sixty-five percent of rice payments were to Southern producers whereas the Southwest and the Plains each accounted for 16.5 percent of rice payments. Average payment per producer was highest for rice producers at $11,238. Rice producers did not receive disaster payments in 1982.

Producers of grain sorghum ($67 million), barley ($61 million), and oats ($0.2 million) combined received about 7 percent of direct payments. Each was produced principally in the Plains region, al-

though, the Northwest planted considerable acreage in barley. Average producer payment was $1,626 for barley producers and $715 for sorghum producers. Oats payments per producer were insignificant as oats were ineligible for deficiency payments in 1982.

Payment Limitation

Nearly 3,450 producers (0.6 percent of participating producers) were constrained by the direct payment limit. Ninety-four producers were exempt from payment limit because of the provision in the 1981 farm bill excluding "land owned by States, political subdivisions, or agencies thereof." Foregone payments totaled $136 million, or 7.4 percent of the payments made. The foregone payments amounted to $39,420 per affected producer.

Farm Size Distribution

The farm size distribution of program benefits was initially compared against both the farm size distribution of participating cropland (see figure 7) and the farm size distribution of participating producers (see figure 8). The former comparison depicts program benefits as closely corresponding to acreage or similarly, production. Producers with TCL of less than 70 acres operated 4.0 percent of all participating total cropland and received 4.2 percent of all program benefits. Similarly, producers with TCL of 1,500 to 2,499 acres operated 11.6 percent of all participating total cropland and collected 11.2 percent of program benefits. Notably, as a probable result of the payment limitation, producers with more than 2,500 acres TCL accounted for 11.6 percent of enrolled TCL whereas they received 6.6 percent of total program benfits.

The latter farm size comparison, that of payments and producers, generally shows that large producers (greater than 500 acres) received a disproportionate share of program benefits relative to small producers (less than 220 acres). Midsized producers received roughly proportional payments per producer.

Specifically, producers with farms with less than 70 acres total cropland, accounted for 31 percent of all producers and received 4.2 percent of total direct payments. Producers with 2,500 or more acres total cropland accounted for less than 1 percent of all producers and received nearly 7 percent of total direct payments.

Average payment to producers with less than 70 acres was $448. In contrast, producers with total cropland of 2,500 or more acres received $27,204 on average. Small farms, those with less than 220 total cropland acres, received an average of $898 per producer; intermediate farms, those with 220 to 999 acres total cropland, received an average of $5,354 per producer; and large farms, those with 1,000 acres or more, received $17,406 per producer.

While percentage figures are intuitively appealing for a single distribution, an alternative approach is necessary to compare the several payment distributions of program crops. An approach often used is a Lorenze curve analysis.

A Lorenze curve is a plot of the cumulative percent of income or payments received on the vertical axis and the cumulative percent of the population receiving that income or payment on the horizontal axis (see figure 9). If all farmers received an equivalent level of benefits from the commodity programs (perfect equality) the Lorenze curve would be a 45° line extending from the origin. The further the Lorenze curve departs from the diagonal the greater the inequality of the payment or income distribution.

The distribution data presented in the Lorenze curve may be summarized numerically (facilitating comparison) with the Gini concentration ratio. The Gini ratio is defined as the proportion of the area between the diagonal and the Lorenze curve to the area under the diagonal. A Gini of 0 is perfect equality with inequality increasing as Gini increases to 1.

TABLE 5.—1982 ASCS STATE PARTICIPATION AND PAYMENTS SUMMARY

	Total cropland	Acreage		Number of Producers	Payments			Percent total direct	Average pay per producer
		Base	Planted		Deficiency	Disaster	Direct		
Alaska	16,067	8,076	4,189	9	61,888	0	61,888	0.00	$6,875
Idaho	2,825,458	1,759,695	1,158,872	6,518	26,026,080	4,628	26,030,708	1.43	3,994
Oregon	1,529,888	790,022	516,173	3,600	12,032,207	0	12,032,207	.66	3,342
Washington	3,816,165	2,521,855	1,677,168	7,949	39,216,064	0	39,216,064	2.15	4,933
Northwest	8,187,578	5,079,648	3,356,402	18,076	77,336,239	4,628	77,340,867	4.25	4,279
Arizona	863,296	652,187	364,784	1,404	37,964,080	0	37,964,080	2.08	27,040
California	3,399,973	2,359,030	1,288,907	6,927	108,679,104	3,466	108,682,570	5.97	15,690
Nevada	81,252	32,552	18,549	91	489,649	0	489,649	.03	5,381
New Mexico	1,429,032	1,136,651	725,266	3,362	10,397,210	2,953,459	13,350,699	.73	3,971
Utah	513,309	228,763	147,724	1,218	2,088,281	0	2,088,281	.11	1,715
Southwest	6,286,862	4,409,183	2,545,230	13,002	159,618,324	2,956,925	162,575,249	8.92	12,504
Colorado	5,090,189	2,891,992	2,015,645	10,178	26,048,800	24,800	26,073,600	1.43	2,562
Kansas	14,955,391	10,698,423	6,493,521	59,741	94,149,344	53,226	94,202,570	5.17	1,577
Montana	12,570,480	7,115,714	5,012,645	15,714	66,694,128	17,984	66,702,112	3.66	4,245
Nebraska	11,258,000	8,326,636	5,909,173	48,296	91,369,152	8,488	91,377,640	5.02	1,892
North Dakota	20,683,712	12,897,332	8,798,177	44,090	113,234,000	6,146	113,240,146	6.22	2,568
Oklahoma	5,809,398	4,875,800	3,304,461	22,933	60,993,360	1,776,493	62,769,853	3.45	2,737
South Dakota	8,524,218	5,685,844	3,494,499	17,435	34,261,376	0	34,261,376	1.88	1,965
Texas	21,136,368	16,760,800	11,229,078	70,230	345,635,328	112,977,792	459,613,120	25.18	6,530
Wyoming	448,516	196,698	139,811	831	1,798,652	2,091	1,800,743	.10	2,167
Plains	100,476,272	69,439,239	46,397,010	289,448	834,174,140	114,867,020	949,041,160	52.10	3,279

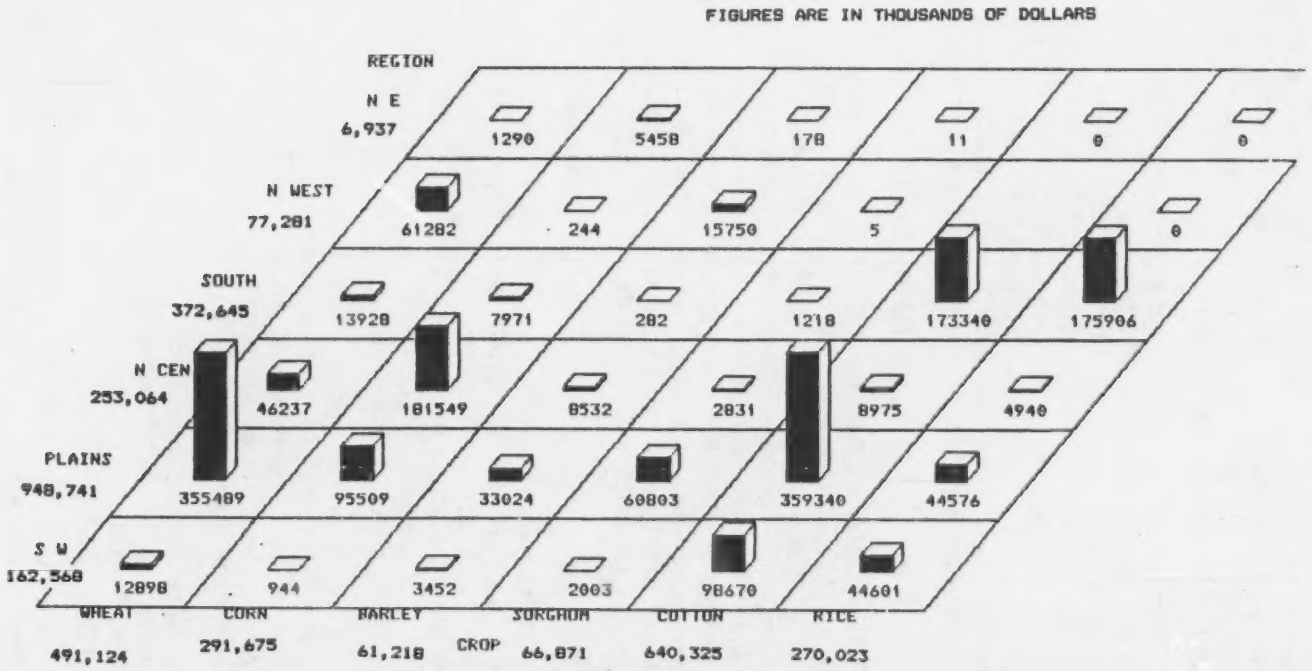
Illinois	4,358,673	2,825,160	1,992,771	24,109	33,699,504	44,971	33,744,475	1.85	1,400
Indiana	2,374,902	1,587,821	1,039,707	12,931	17,098,464	4,750	17,103,214	.94	1,323
Iowa	9,786,853	5,974,958	4,561,381	48,682	72,552,656	2,833	72,555,489	3.98	1,490
Michigan	2,257,291	1,387,613	861,764	9,246	12,095,474	7,633	12,103,107	.66	1,305
Missouri	4,251,655	2,451,302	1,133,074	19,798	32,036,960	113,636	32,150,596	1.76	1,624
Minnesota	8,337,467	5,792,511	3,846,061	24,876	61,550,736	7,276	61,558,012	3.38	2,475
Ohio	1,577,737	977,084	560,388	8,962	9,977,955	6,602	9,984,557	.55	1,114
Wisconsin	2,103,967	1,331,109	932,022	9,062	13,884,937	4,261	13,889,198	.75	1,533
North Central	35,048,545	22,327,558	15,127,168	157,666	252,896,686	191,962	253,088,648	13.89	1,605
Alabama	1,003,819	525,218	330,305	4,482	18,988,368	960	18,989,328	1.04	4,237
Arkansas	4,674,847	2,734,763	1,644,719	14,967	142,596,384	396	142,596,780	7.83	9,527
Florida	479,159	138,339	66,816	818	1,513,385	1,063	1,514,448	.08	1,851
Georgia	1,574,894	841,470	415,648	4,426	11,092,894	936	11,093,830	.61	2,507
Kentucky	672,575	330,042	178,603	3,693	2,745,238	4,005	2,749,243	.15	744
Louisiana	2,522,030	1,229,044	879,173	12,036	77,091,840	0	77,091,840	4.23	6,405
Mississippi	3,191,392	1,740,008	1,128,108	7,829	86,900,352	534	86,900,886	4.77	11,100
North Carolina	870,294	483,549	265,037	6,139	6,462,693	0	6,462,693	.35	1,053
South Carolina	974,276	489,428	243,804	2,702	8,721,281	301	8,721,582	.48	3,228
Tennessee	2,389,061	611,769	353,383	7,071	14,806,308	15,344	14,821,652	.81	2,096
Virginia	492,838	227,354	120,566	3,753	1,632,062	0	1,632,062	.09	435
West Virginia	16,260	9,493	5,921	137	75,236	0	75,236	.00	549
South	18,861,435	9,360,477	5,632,083	68,053	372,626,041	23,539	372,649,580	20.46	5,476

TABLE 5.—1982 ASCS STATE PARTICIPATION AND PAYMENTS SUMMARY—Continued

	Total cropland	Acreage		Number of Producers	Payments			Percent total direct	Average pay per producer
		Base	Planted		Deficiency	Disaster	Direct		
Connecticut	1,475	668	465	9	7,212	0	7,212	.00	801
Delaware	25,644	19,746	8,829	103	134,893	0	134,893	.01	1,310
Maryland	100,961	72,506	35,061	431	0	0	532,239	.03	1,235
Maine	83,270	28,911	19,708	255	56,728	1,460	58,188	.00	228
Massachusetts	859	652	471	21	0	0	6,360	00	303
New Hampshire	247	109	75	4	965	0	965	.00	241
New Jersey	55,555	28,989	17,594	159	258,797	0	258,797	.01	1,628
New York	901,423	514,486	304,686	2,614	4,192,946	665	4,193,611	.23	1,604
Pennsylvania	405,419	237,115	134,863	2,564	1,740,501	0	1,740,501	.10	679
Vermont	6,139	1,649	1,230	33	15,366	0	15,366	.00	466
Northeast	1,580,992	904,833	522,982	6,193	6,946,007	2,125	6,948,132	.38	1,122
U.S. total	170,441,684	111,520,938	73,580,875	552,438	1,703,597,437	118,046,199	1,821,629,994	100	3,297

Note.—No deficiency disaster payments were made in Hawaii and Rhode Island

FIGURE 6.—1982 ASCS DIRECT PAYMENTS BY REGION AND CROP



Comparisons among producer direct payments distributions by commodity show cotton payments to be the most unequal and barley payments to be the least (see table 6). Among the grain commodities, wheat payments were the most concentrated, followed by grain sorghum, corn, and barley. Cotton payments were more concentrated than were rice payments.

TABLE 6.—PRODUCER DISTRIBUTION OF PAYMENTS BY FARM SIZE (TCL)

[In percent]

	Smallest			Largest		Gini
	Decile	Quarter	Half	Quarter	Decile	
Barley	1.5	4.5	16.0	61.0	40.0	0.458
Corn	2.0	4.5	16.0	60.0	34.0	.493
Sorghum	2.0	4.8	14.8	62.5	37.0	.520
Wheat	1.4	3.2	11.0	69.0	42.7	.588
Rice	1.2	2.5	9.8	62.0	30.2	.536
Cotton	1.2	2.5	7.0	73.5	40.0	.619

TABLE 7.—THE DISTRIBUTION OF 1982 DIRECT PAYMENTS TO PRODUCERS BY FARM SIZE

[Figures are in thousands of dollars]

Farm size class[1]	Wheat	Corn	Barley	Sorghum	Cotton	Rice	Oats	Total
0 to 69	15,291	12,926	1,015	3,868	31,647	12,092	19	76,858
Percent	3.11	4.43	1.66	5.78	4.94	4.48	7.54	4.22
70 to 139	24,517	29,764	2,081	5,143	32,679	14,932	42	109,158
Percent	4.99	10.20	3.40	7.69	5.10	5.53	16.67	5.99
140 to 219	28,189	36,847	2,750	5,620	33,254	18,677	32	125,369
Percent	5.74	12.63	4.49	8.40	5.19	6.92	12.70	6.88
220 to 259	12,981	17,331	1,368	2,671	17,580	10,398	19	62,348
Percent	2.64	5.94	2.23	3.99	2.75	3.85	7.54	3.42
260 to 499	76,740	77,911	9,429	13,779	114,293	58,987	48	351,187
Percent	15.62	26.71	15.39	20.61	17.85	21.85	19.05	19.28
500 to 999	126,982	66,400	17,050	16,189	200,269	79,579	47	506,516
Percent	25.85	22.76	27.82	24.21	31.28	29.47	18.65	27.81
1,000 to 1,499	75,406	23,779	10,288	8,305	110,382	36,262	14	264,436
Percent	15.35	8.15	16.79	12.42	17	13.43	5.56	14.52
1,500 to 1,999	43,701	11,210	5,718	4,279	52,065	17,710	11	134,694
Percent	8.90	3.84	9.33	6.40	8.13	6.56	4.37	7.39
2,000 to 2,499	26,852	5,401	3,443	2,386	22,903	8,903	7	69,895
Percent	5.47	1.85	5.62	3.57	3.58	3.30	2.78	3.84
2,500 plus	60,546	10,107	8,141	4,627	25,261	12,482	13	121,177
Percent	12.33	3.47	13.28	6.92	3.94	4.62	5.16	6.65
Total	491,205	291,676	61,283	66,867	640,333	270,022	252	1,821,638
Gini ratio	0.588	0.493	0.458	0.520	0.619	0.536	([2])	0.596

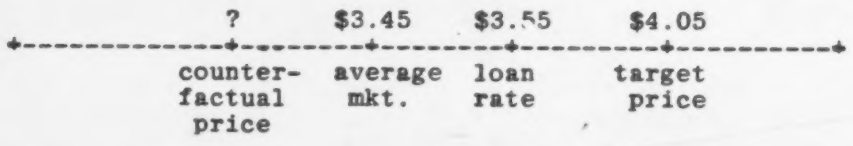
[1] Farm size is estimated total acreage of program and nonprogram cropland under the control of an individual producer. When more than one producer is involved in the operation of a farm, cropland is assigned to producers based on their share of program crops.

[2] No deficiency payments were paid on oats in 1982. The small amount of disaster payments precluded the calculation of a meaningful Gini ratio.

Part IV.—NET BENEFITS

The determination of net benefits to producers participating in the commodity programs is conceptually simple. Reduced production receipts resulting from acreage reductions are subtracted from increased receipts due to higher prices, and the surplus (deficit) is the net benefit (loss). The empirical calculation, however, is complex. First, higher prices result from the interactions among several programs. Second, price change must be measured initially from nonexistent "counterfactual" prices—prices that would have been but for Federal intervention. Third, necessary data are often nonexistent or unavailable.

Consider the wheat price spectrum below:



The price spectrum may be divided into indirect benefits, loan receipts and deficiency or direct payments. Indirect benefits result from high prices due to acreage reductions and lie between the counterfactual price and average market price on the price spectrum. Loan receipts result from defaulted CCC loans and occur where the loan rate exceeds average market price, or between the average market price and the loan rate on the price spectrum. Direct benefits lie on the price spectrum between the loan rate and target price. ASCS data provide the opportunity to measure direct benefits as this study has shown. Loan receipts, on the other hand, were not calculated because appropriate data regarding loan activity were unavailable. Indirect benefits are estimated below.

Indirect Benefits

In order to determine the shortrun indirect benefits derived from increased program commodity prices due to reduced supply attributable to the commodity programs, it is necessary to estimate what prices might have been without Federal intervention. Estimation of "counterfactual" prices is a highly spectulative procedure; but the analysis is also quite valuable, particularly to appraise policy impacts. To approximate 1982 "counterfactual" prices, this study utilized the food and agricultural policy simulator (FAPSIM), an annual econometric model developed by ERS economists for policy

simulations. Supply restrictions (e.g., acreage reductions program (ARP), and increases in farmer owned reserves (FOR) and Commodity Credit Corporation (CCC) stocks) and price restrictions (e.g., nonrecourse loan levels, target price levels) were considered to be the determinants of indirect price benefits. In estimating the commodity programs shortrun price impact, ARP, nonrecourse loan levels and target prices were set equal to zero. FOR and CCC stocks were frozen at 1982/83 beginning year levels and actual increases in these stocks were assumed to be marketed. The price change estimates therefore approximate a static 1982 picture of indirect commodity program price benefits.

Estimations of "counterfactual" prices are useful in assessing the magnitude and direction of price changes but should not be used as "point" estimates. Moreover, several procedures used here may tend to reduce the exactness of the FAPSIM model estimates. For example, actual program benefits would be higher than estimated here if existing carryover stocks in the FOR and CCC at the beginning of program year 1982 were freed. On the other hand, some would argue that price changes due to abolishing Government programs would be less than estimated here if the price comparison were made under "near-equilibrium" conditions over perhaps a 10-year period.

As a general proposition, however, assuming that Government intervention is eliminated for 1982, price changes are considerable. The greatest price impact derives from preventing increases in FOR stocks. The FAPSIM simulation estimated price declines of 56 percent for wheat ($1.94/bu); 50 percent for corn ($1.28/bu); 43 percent for sorghum ($1.00/bu); 50 percent for barley ($1.16/bu); 18 percent for oats ($0.30/bu); and 58 percent for cotton ($33.13/cwt). Price changes for rice were not estimated by the model and hence, indirect benefits to rice producers are not included in this discussion.

Total indirect benefits (excluding rice) to producers participating in the commodity programs were estimated to be $6.320 billion.[1] (Indirect benefits were determined from crop payment distributions. Payments for each crop within a farm size class were multiplied by the ratio of simulated price to program payment rate to find crop farm size class indirect benefit.) Corn producers realized the largest gain of $2.493 billion. Wheat and cotton producers followed with $1.865 and $1.424 billion, respectively. Indirect benefits to sorghum producers were estimated at $362 million; to barley producers, $162 million; and to oats producers, $14 million.

Comparing total direct and indirect benefits, the indirect benefits exceed direct benefits by more than 400 percent. Examining indirect benefits by farm size class, once again, participating large producers received a disproportionate amount of total benefits. Each producer with less than 70 acres received an average indirect benefit of $1,535. The largest producers, those with farms exceeding

[1] Program participants who fed livestock realized an indirect cost due to higher grain prices. These costs were not included in estimation of indirect benefits because ASCS files do not include livestock data.

2,499 acres, received $92,228 indirect benefit per producer. Midsized producers, those with 500 to 999 acres, benefited $27,156 each. (See table 8.)

TABLE 8.—DISTRIBUTION OF AVERAGE NET BENEFITS TO PARTICIPATING PRODUCERS BY FARM SIZE

Farm size class	Direct benefits	Indirect benefits	ARP costs	Net benefit
0 to 69	$379	$1,535	$194	$1,720
70 to 139	899	4,333	551	4,681
140 to 219	1,497	7,520	948	8,069
220 to 259	2,079	10,231	1,276	11,034
260 to 499	3,373	15,214	1,889	16,698
500 to 999	7,093	27,156	3,440	30,809
1,000 to 1,499	12,286	43,563	5,728	50,121
1,500 to 1,999	16,051	57,308	7,925	65,434
2,000 to 2,499	18,454	67,151	9,815	75,790
2,500 plus	23,707	92,228	16,073	99,862
Total, all producers (billions)	1.552	6.320	0.831	7.053

Note.—Rice figures are not included.

Cost of Participation

In order for a producer to have participated in the 1982 commodity programs, he had to reduce plantings (from his established acreage base) 10 percent for feed grains and 15 percent for wheat, cotton, and rice. The income forgone from diverting acreage represents a real cost for participating in the commodity programs. Reduced production costs were also considered in calculating the costs of participating in the commodity programs, for each acre withheld from production reduces the producer's cost by his variable expense per acre. Foregone revenues due to the ARP were estimated using actual market prices rather than counterfactual prices and thus estimates represent the higher end of the hypothetical range of the opportunity cost of participation. Production costs were the national average statistics as reported by ERS in "Economic Indicators of the Farm Sector: Cost of Production, 1982."

Aggregate estimated opportunity costs for commodity program participation were $0.831 billion or 54 percent of direct payments. Producers of corn and oats received less direct payments than they paid in hypothetical opportunity costs. Oats producers realized substantially less in direct payments because market price exceeded the target price and no deficiency payments were made. Corn producers' costs also exceeded direct benefits, though by only 5 percent. Conversely, wheat and sorghum direct benefits exceeded opportunity costs by 45 percent; barley direct benefits exceeded costs by more than 200 percent. Cotton producers' direct benefits were more than four times the costs of participating in the price control program.

FIGURE 7.—FARM SIZE DISTRIBUTION OF 1982 ASCS DIRECT PAYMENTS AND PARTICIPATING CROPLAND

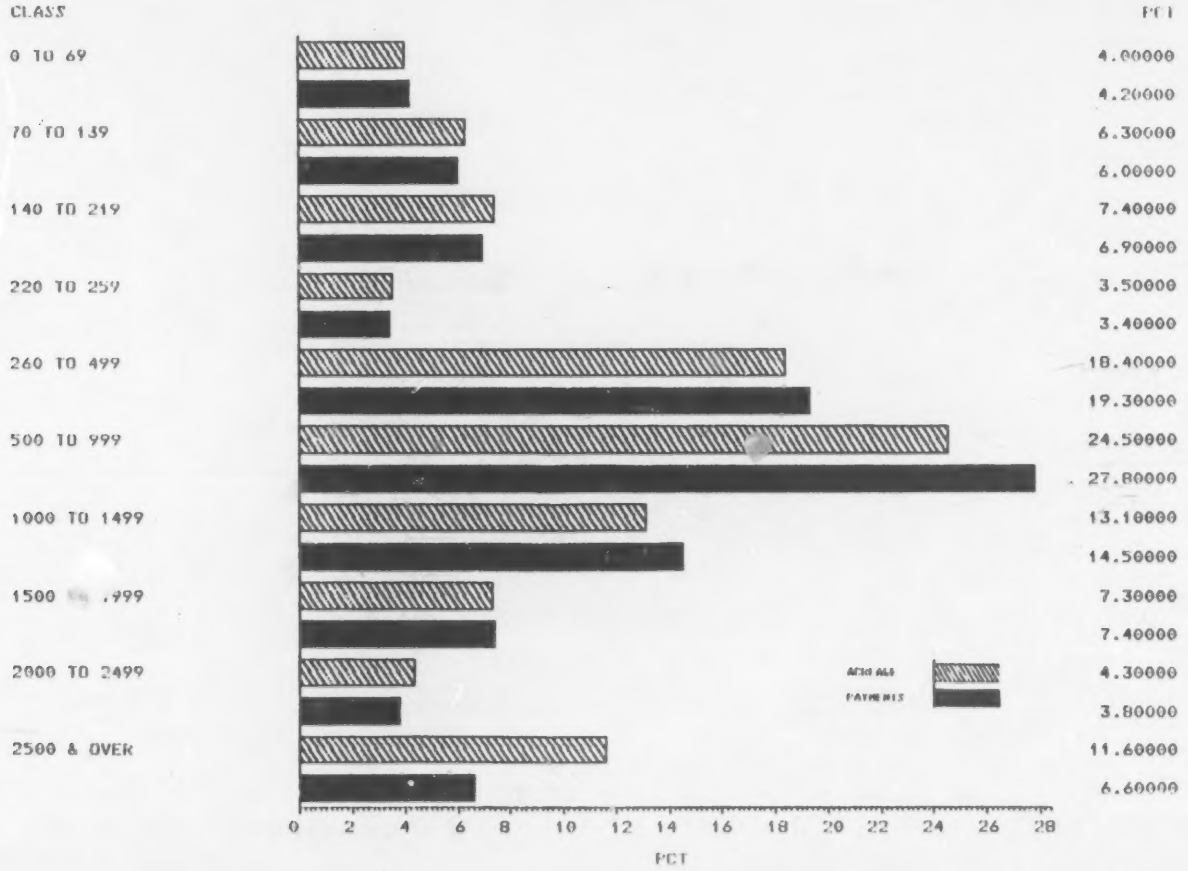


FIGURE 8.—FARM SIZE DISTRIBUTION OF 1982 ASCS DIRECT PAYMENTS AND PARTICIPATING PRODUCERS

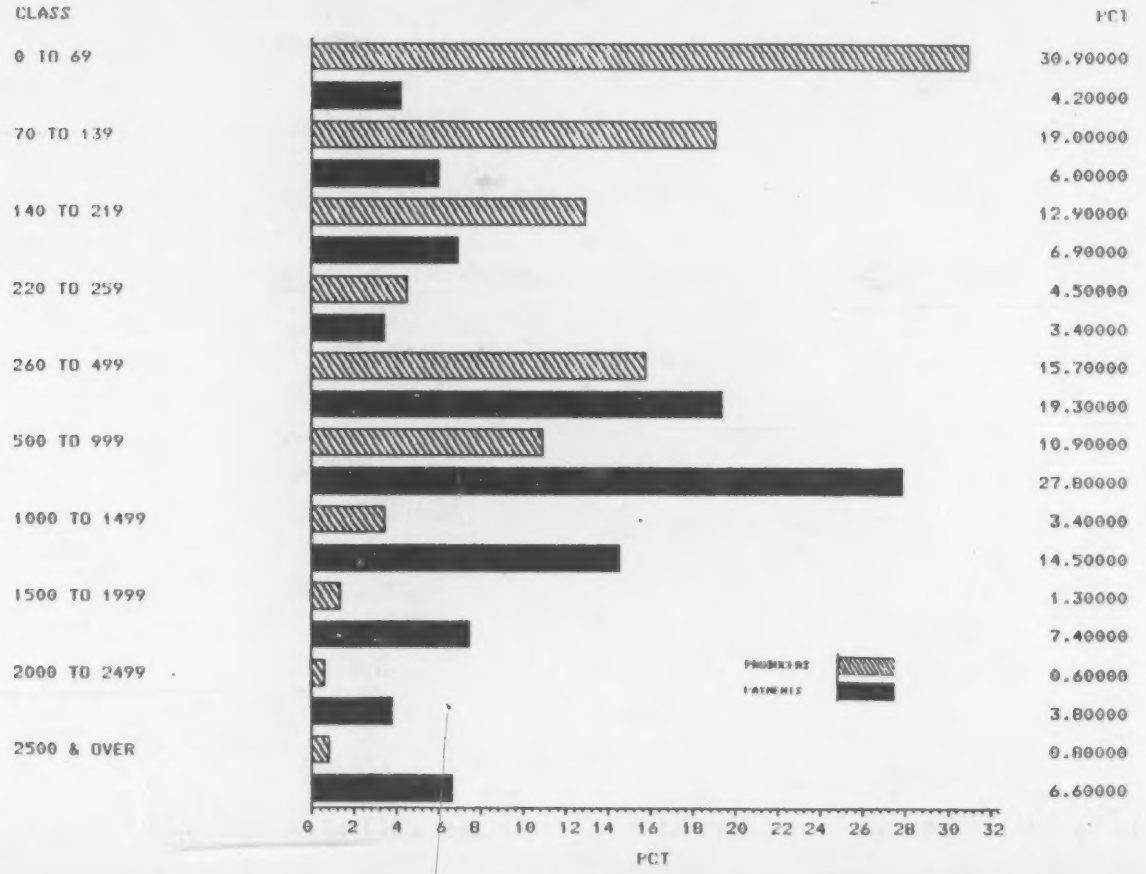
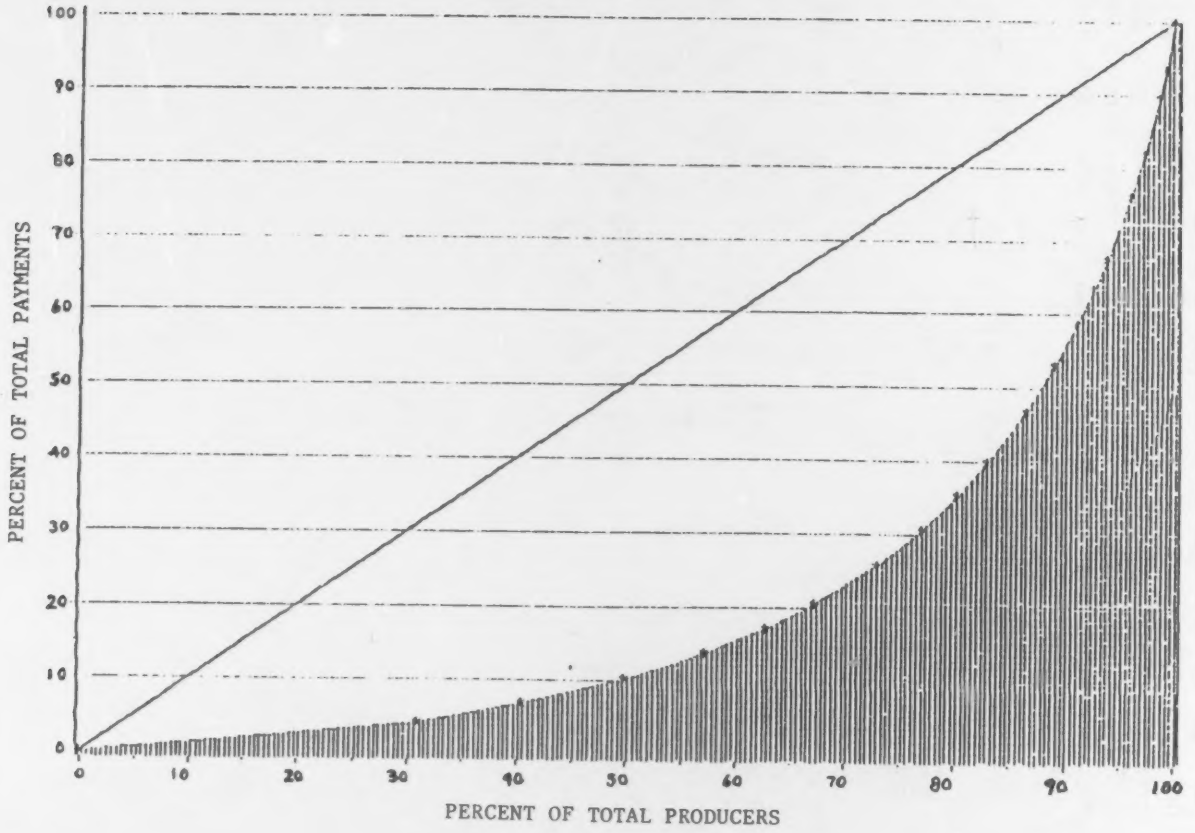


FIGURE 9.—PRODUCER PAYMENTS DISTRIBUTION BY FARM SIZE

U.S. TCL



Net Benefits

Net benefits to producers participating in the commodity programs are equal to the sum of direct benefits and indirect benefits less ARP opportunity costs (loan receipts, where they occur, are also a component of net benefits although they are not included in the analysis). Nationwide, total net benefits to participating producers were roughly $7.053 billion ($1.552 billion plus $6.320 billion minus $0.831 billion).

Part V.—BENEFITS OVER TIME

The distribution of farm program benefits have been measured on a number of occasions, beginning with Bonnen's study of the 1960's followed by Schultze (1971), Gardner and Hoover (1975), and recently, Lin, Johnson, and Calvin (1981) and Short (1982).[1] In each case, the concentration of payments was found to favor large farms. Due to the variety of procedures of measuring payment distributions, however, comparisons among these studies are difficult to make. With this in mind the current study closely reproduced the direct payments procedures of the study by Lin, Johnson, and Calvin in order to effect an historical comparison.

Participation

Program year 1978 producer participation was 33 percent greater (739,105) than program year 1982 (552,438). Acreage enrollment for 1978 (99,134) exceeded 1982 levels (73,581) by 35 percent and nominal 1978 direct payments ($2 billion) were greater than 1982 payments ($1.8 billion) by 11 percent.

Three-quarters of 1978 enrolled acreage was planted in wheat (42 percent) and corn (33 percent). Sorghum (9.8 percent), cotton (6.4 percent) and barley (6.1 percent) constituted most of the remaining participating acreage; rice and hay-grazing accounted for about 2 percent of program acreage. Wheat, barley, and sorghum producers enrolled roughly constant proportions of these crops in 1978 and 1982. Rice acreage participation doubled since 1978, and 1982 producers traded 6 percent more cotton for 6 percent less corn as a proportion of total program acreage.

The farm size distribution of producer participation (figure 10) shows a significant shift toward larger farm operations from 1978 to 1982. The crop mix distribution by farm size over the 4-year period shows small farmers (see table 9) reducing wheat and corn proportions of total planted acreage and increasing cotton and rice. Barley and sorghum proportions remained nearly constant. Large producers, conversely, have moved into wheat and out of cotton since 1978. Corn and sorghum proportions of total planted acreage have also declined. Large producers proportionately doubled rice program acreage.

[1] For a detailed discussion of the historical examination of commodity program benefits, see Johnson and Short.

TABLE 9.—CROP MIX BY FARM SIZE: 1978 TO 1982

Farm size class	Wheat	Corn	Cotton	Rice	Barley	Sorghum	Total (percent)
0 to 69:							
1978	38.31	39.95	5.03	1.22	3.50	12.00	100
1982	36.49	31.75	13.63	4.13	2.35	11.56	100
2,500 plus:							
1978	46.09	15.20	14.02	1.84	8.57	14.27	100
1982	57.53	10.16	11.08	4.32	8.99	7.93	100

Note.—Numbers are average percent of total acreage per farm. Totals may not add to 100 due to rounding.

Direct Payments

Nominal direct payments decreased from 1978 to 1982, from $2.0 to $1.8 billion. Real payments (in 1967 dollars) declined 30 percent, although fewer producers received payments and average payment per producer remained virtually constant (see table 10).

TABLE 10.—COMPARISON OF REAL PRODUCER NET BENEFITS

[In 1967 dollars]

	1978	1982
Direct benefits:		
Total	$897,000,000	$630,000,000
Average	1,214	1,208
Indirect benefits:		
Total	467,000,000	2,186,000,000
Average	632	3,957
Opportunity cost:		
Total	593,000,000	287,000,000
Average	802	519
Net benefits:		
Total	771,000,000	2,529,000,000
Average	1,044	4,646

Lin et al. summarized the distribution of benefits for 1978:

> Large farmers received most of the $2 billion paid to farmers under the 1978 commodity programs. . . . Ten percent of the participants in the programs (the largest farmers, those with 500 acres or more) received nearly half of all payments; 50 percent of the participants (the smallest farmers, those with less than 140 acres) received about 10 percent.

The 1982 direct benefits similarly accrued disproportionately to larger producers. As a result of increased participation by larger farms, the distribution of direct payment benefits shifted to larger producers.[2] (See figure 11.) In order to directly compare 1978 and 1982 payments distribution, however, consider the Lorenze curve analysis in figure 12. Quantification of figure 12 found 1982 payments (Gini=0.596) to be slightly more equally distributed than 1978 payments (Gini=0.599). Evidently, although 1982 large producers received more benefits than 1978 large producers, the farm size of all participants has increased since 1978; hence, the relative proportion of payments to large and small producers remained virtually unchanged over this period.

Numerous factors combined to alter the direct payments distribution from 1978 to 1982, though the increased impact of the payment limitation was surely instrumental. In 1978 savings resulting from the payment limit were estimated at $23.7 million or 1.33 per-

[2] This shift in the distribution of payments is to some extent due to the difference in the farm size proxy. The 1982 TCL is often greater than 1978 NCA.

cent of total payments. The 1982 savings were estimated at $136 million or 7.4 percent of total payments.

Cost of Participation

The cost of participating in the commodity programs decreased in both nominal and real terms for 1982. The total nominal opportunity cost in 1978 was $1.158 billion foregone, whereas in 1982 producers forfeited an estimated $831 million. Real costs (1967 dollars) decreased nearly 50 percent.

Indirect Benefits

Indirect benefits in 1978 were estimated to total $912 million or about 50 percent of direct payments. Price changes due to reduced planting were modest, with increases estimated at "3 percent for cotton, 4 percent for sorghum, 6 percent for corn, 8 percent for barley, and 14 percent for wheat" (Lin et al.). Average benefits to producers with less than 70 acres NCA were $195. The largest producers received an average of $22,000 each.

Indirect benefits increased radically between 1978 and 1982.[3] In 1978 the direct payments/indirect benefits ratio was 1.92. In 1982 this ratio plunged to 0.285. Average real indirect benefit to the largest producers grew from $11,259 to $31,902 per producer. Average benefit for the smallest producer similarly increased from $100 in 1978 to $531 in 1982.

[3] Differences in the estimation procedures may have tended to increase 1982 price change estimates relative to 1978. The major differences in prices, however, must be attributed to the impact of the FOR program.

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FIGURE 10.—FARM SIZE DISTRIBUTION OF PRODUCER PARTICIPATION: 1978 NCA AND 1982 TCL

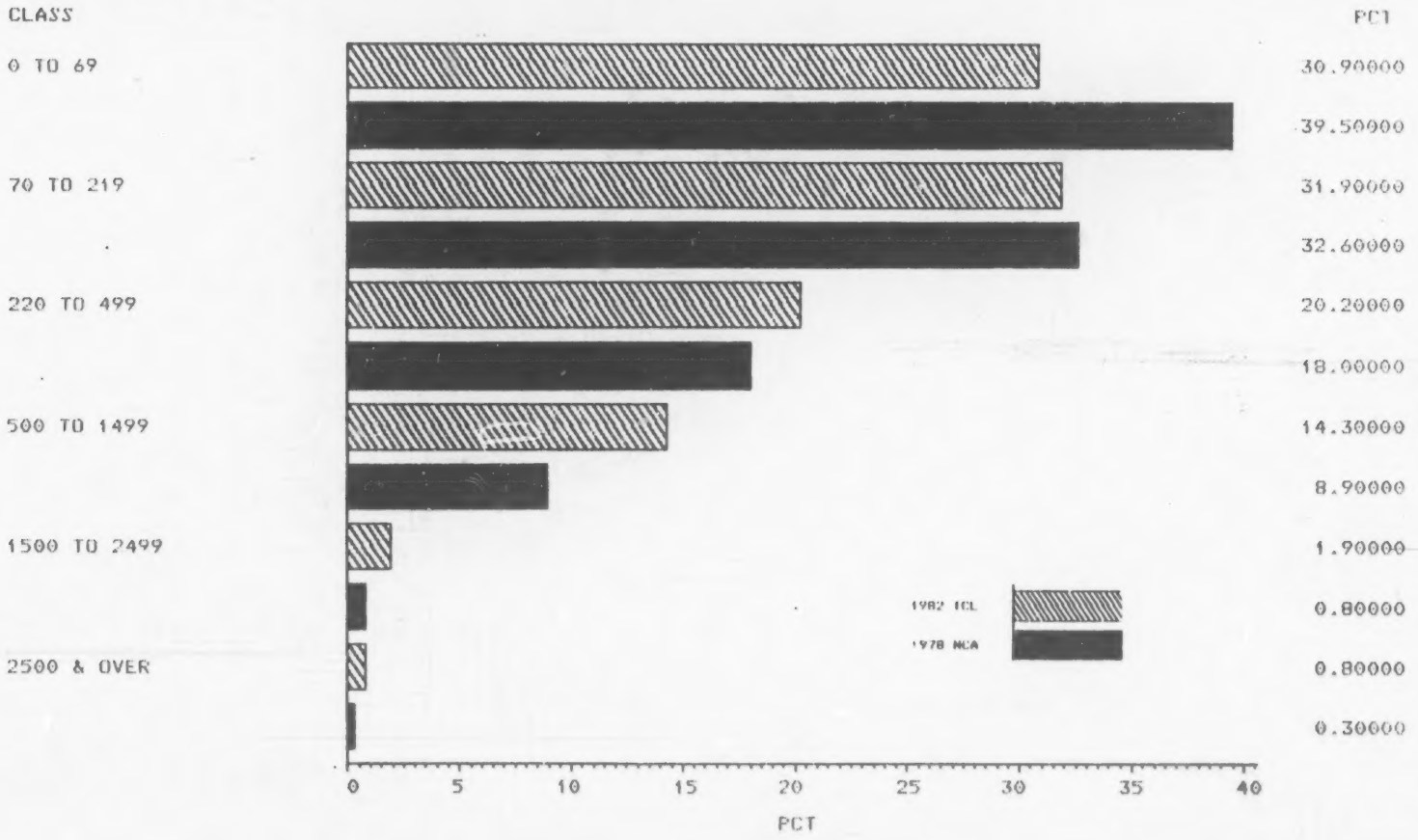


FIGURE 11.—FARM SIZE DISTRIBUTION OF DIRECT PAYMENTS: 1978 NCA AND 1982 TCL

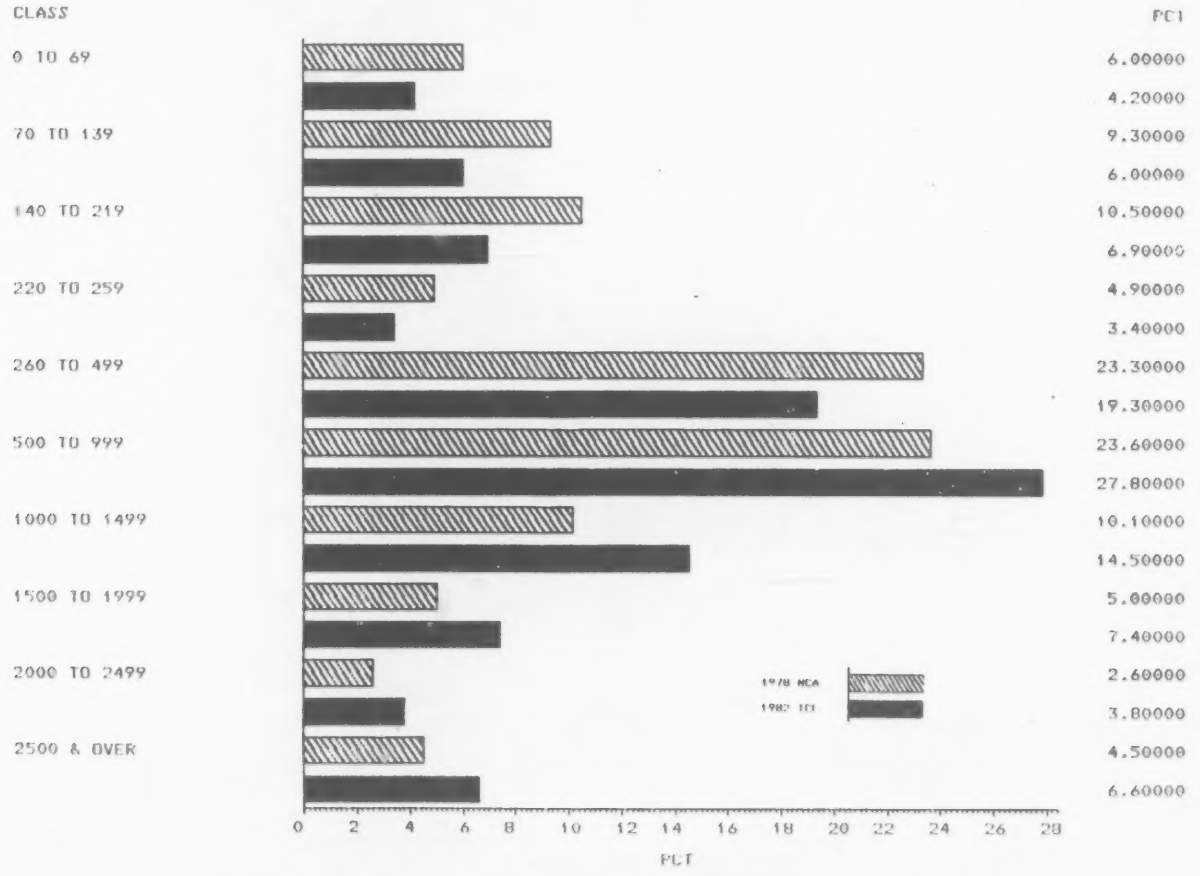


FIGURE 12.—PAYMENTS DISTRIBUTION COMPARISON: 1978 NCA and 1982 TCL

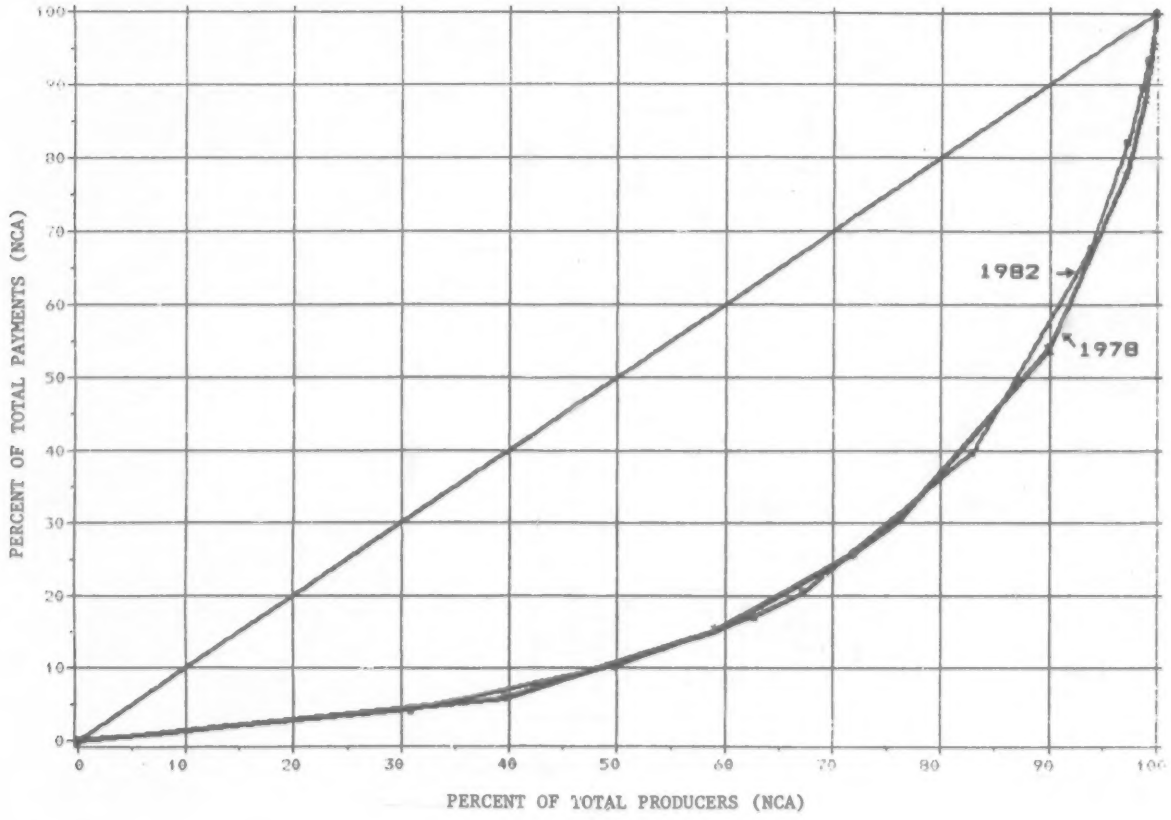


TABLE A1.—ASCS SUMMARY FOR WHEAT BY FARM SIZE: FARM SIZE PROXY IS TOTAL ACREAGE BASE (TAB)

Farm size class	Number of producers	Percent	Number of acres	Percent	Direct payments	Percent
0 to 69	94,078	36.37	2,718,112	5.51	$27,570,160	5.61
70 to 99	23,377	9.04	1,571,755	3.19	15,593,939	3.17
100 to 139	22,632	8.75	2,072,035	4.20	20,574,192	4.19
140 to 179	16,745	6.47	1,996,893	4.05	19,580,224	3.99
180 to 219	13,318	5.15	1,965,458	3.99	19,429,632	3.96
220 to 259	10,805	4.18	1,900,021	3.85	18,540,048	3.77
260 to 319	13,375	5.17	2,812,460	5.70	27,637,584	5.63
320 to 379	10,620	4.11	2,679,274	5.43	26,471,728	5.39
380 to 439	8,511	3.29	2,519,533	5.11	25,031,488	5.10
440 to 499	7,061	2.73	2,369,957	4.81	23,765,456	4.84
500 to 599	8,948	3.46	3,532,671	7.17	35,621,760	7.25
600 to 699	6,486	2.51	2,990,912	6.07	30,214,320	6.15
700 to 799	4,757	1.84	2,530,916	5.13	25,371,872	5.17
800 to 899	3,583	1.39	2,136,762	4.33	21,577,376	4.39
900 to 999	2,804	1.08	1,866,377	3.79	18,915,200	3.85
1,000 to 1,249	4,557	1.76	3,504,169	7.11	36,689,872	7.47
1,250 to 1,499	2,462	.95	2,358,985	4.78	24,907,136	5.07
1,500 to 1,999	2,409	.93	2,846,740	5.77	29,582,368	6.02
2,000 to 2,499	989	.38	1,550,590	3.15	16,055,279	3.27
2,500 plus	1,172	.45	3,379,047	6.85	28,074,208	5.72
All classes	258,689	100.00	49,302,480	100.00	491,202,304	100.00

TABLE A2.—ASCS SUMMARY FOR SORGHUM BY FARM SIZE: FARM SIZE PROXY IS TOTAL ACREAGE BASE (TAB)

Farm size class	Number or producers	Percent	Number of acres	Percent	Direct payments	Percent
0 to 69	35,471	37.93	773,708	7.43	$5,195,598	7.77
70 to 99	8,665	9.27	424,294	4.07	2,788,027	4.17
100 to 139	8,272	8.85	533,997	5.12	3,524,742	5.27
140 to 179	6,243	6.68	515,939	4.95	3,435,623	5.14
180 to 219	4,786	5.12	484,002	4.64	3,192,079	4.77
220 to 259	4,028	4.31	462,847	4.44	3,126,123	4.68
260 to 319	4,772	5.10	640,540	6.15	4,306,945	6.44
320 to 379	3,674	3.93	567,958	5.45	3,752,298	5.61
380 to 439	2,767	2.96	502,985	4.83	3,241,366	4.85
440 to 499	2,224	2.38	458,317	4.40	3,022,703	4.52
500 to 599	2,892	3.09	657,568	6.31	4,224,714	6.32
600 to 699	2,059	2.20	534,990	5.13	3,523,034	5.27
700 to 799	1,469	1.57	432,238	4.15	2,827,967	4.23
800 to 899	1,144	1.22	392,094	3.76	2,541,033	3.80
900 to 999	961	1.03	347,219	3.33	2,240,788	3.35
1,000 to 1,249	1,555	1.66	666,882	6.40	4,390,120	6.57
1,250 to 1,499	843	.90	436,690	4.19	2,674,562	4.00
1,500 to 1,999	875	.94	586,011	5.62	3,697,786	5.53
2,000 to 2,499	372	.40	301,232	2.89	1,891,099	2.83

TABLE A2.—ASCS SUMMARY FOR SORGHUM BY FARM SIZE: FARM SIZE PROXY IS TOTAL ACREAGE BASE (TAB)—Continued

Farm size class	Number or producers	Percent	Number of acres	Percent	Direct payments	Percent
2,500 plus	447	.48	700,381	6.72	$3,269,961	4.89
All classes	93,519	100.00	10,419,892	100.00	66,866,272	100.00

TABLE A3.—ASCS SUMMARY FOR BARLEY BY FARM SIZE: FARM SIZE PROXY IS TOTAL ACREAGE BASE (TAB)

Farm size class	Number of producers	Percent	Number of acres	Percent	Direct payments	Percent
0 to 69	8,051	21.37	193,700	3.06	$2,145,671	3.50
70 to 99	2,842	7.54	142,641	2.25	1,499,168	2.15
100 to 139	3,012	8.00	198,808	3.14	2,112,067	3.15
140 to 179	2,411	6.40	205,508	3.24	2,084,131	3.40
180 to 219	2,161	5.74	212,355	3.35	2,169,418	3.54
220 to 259	1,654	4.39	204,727	3.23	2,014,188	3.29
260 to 319	2,427	6.44	333,398	5.26	3,274,809	5.34
320 to 379	2,053	5.45	320,308	5.06	3,151,968	5.14
380 to 439	1,761	4.67	307,950	4.86	2,893,359	4.72
440 to 499	1,553	4.12	314,814	4.97	3,018,615	4.93
500 to 599	2,117	5.62	492,156	7.77	4,934,157	8.05
600 to 699	1,617	4.29	413,695	6.53	4,136,197	6.75
700 to 799	1,175	3.12	337,151	5.32	3,310,683	5.40
800 to 899	938	2.49	296,358	4.68	2,992,287	4.88
900 to 999	784	2.08	276,542	4.36	2,839,936	4.63
1,000 to 1,249	1,154	3.06	497,150	7.85	4,822,372	7.87
1,250 to 1,499	677	1.80	331,291	5.23	3,393,896	5.54
1,500 to 1,999	665	1.77	436,814	6.89	4,409,855	7.20
2,000 to 2,499	257	.68	210,456	3.32	1,949,776	3.18
2,500 plus	360	.96	609,740	9.62	4,128,858	6.74
All classes	37,669	100.00	6,335,562	100.00	61,281,248	100.00

TABLE A4.—ASCS SUMMARY FOR CORN BY FARM SIZE: FARM SIZE PROXY IS TOTAL ACREAGE BASE (TAB)

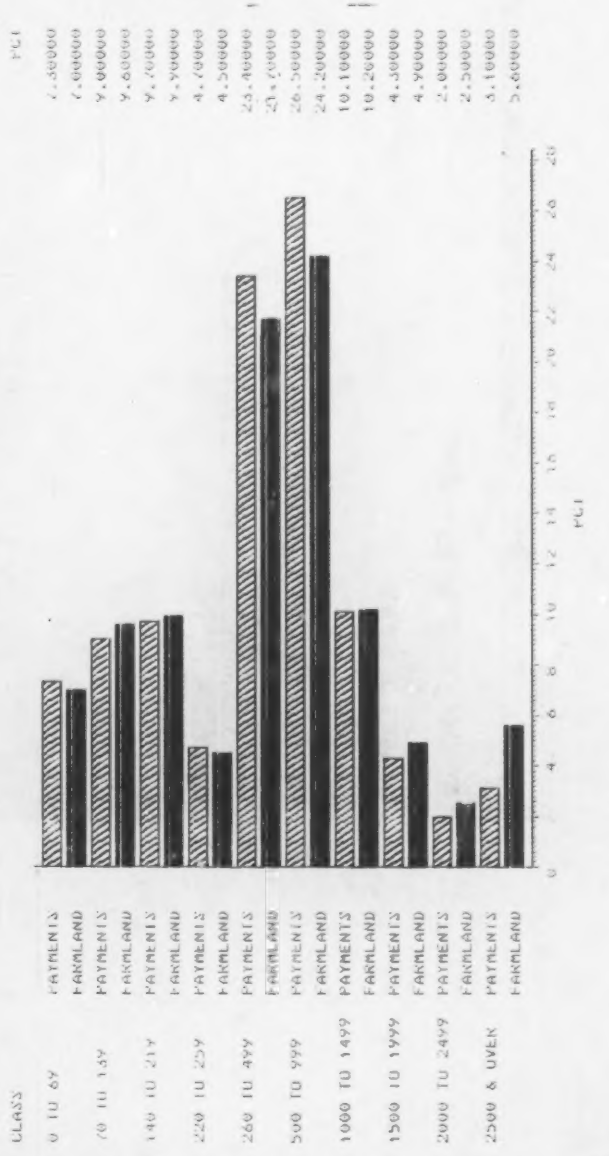
Farm size class	Number of producers	Percent	Number of acres	Percent	Direct payments	Percent
0 to 69	91,783	41.95	2,781,450	10.54	$30,051,872	10.30
70 to 99	26,055	11.91	1,845,690	7.00	20,785,600	7.13
100 to 139	23,920	10.93	2,329,139	8.83	26,368,864	9.04
140 to 179	16,666	7.62	2,126,638	8.06	24,002,224	8.23
180 to 219	11,962	5.47	1,850,513	7.01	20,997,120	7.20
220 to 259	8,793	4.02	1,610,158	6.10	18,058,496	6.19
260 to 319	9,621	4.40	2,038,387	7.73	23,008,960	7.89
320 to 379	6,577	3.01	1,623,898	6.16	18,135,504	6.22

Appendix A:

TOTAL ACREAGE BASE (TAB) FIGURES AND TABLES*

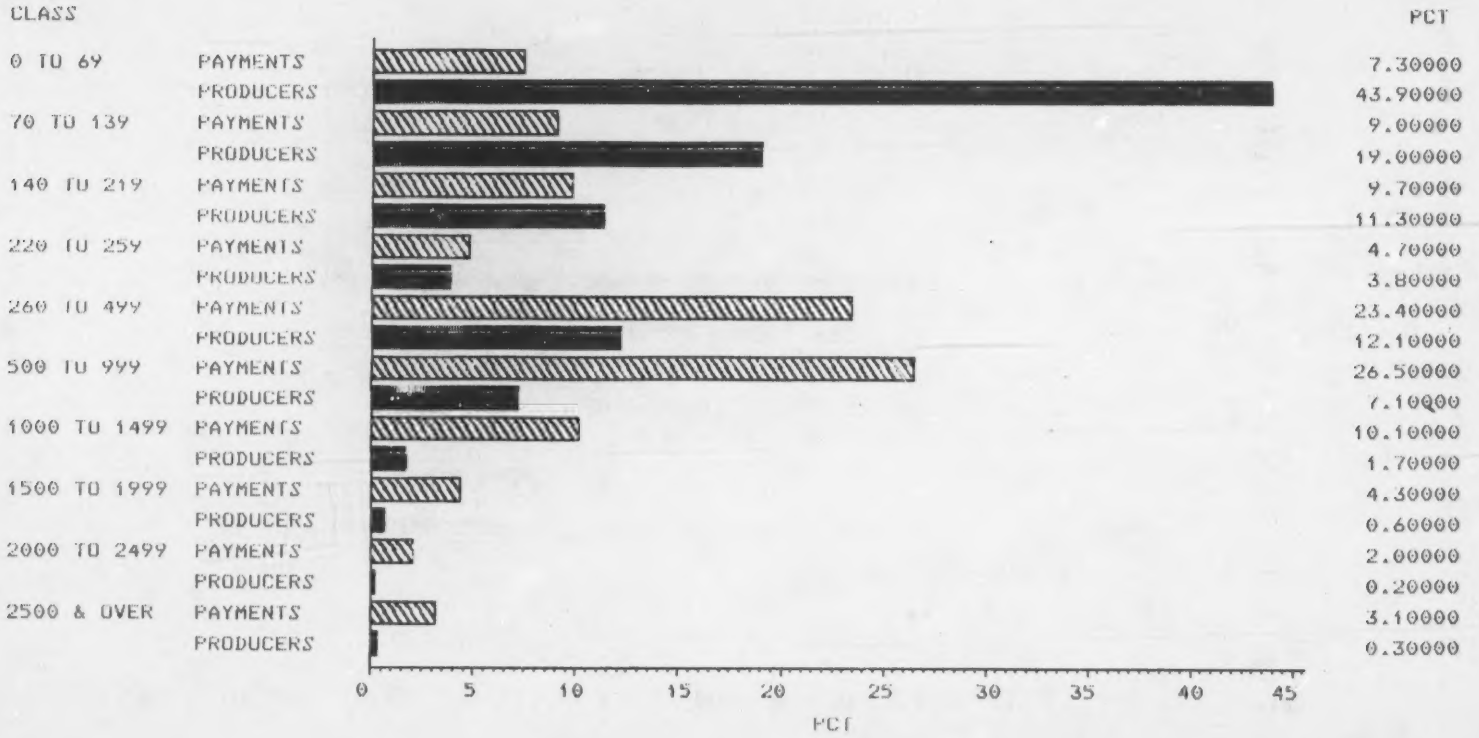
FIGURE A5.—PARTICIPATION DISTRIBUTION BY FARM SIZE[1]

TOTAL ACREAGE BASE AND NUMBER OF PRODUCERS



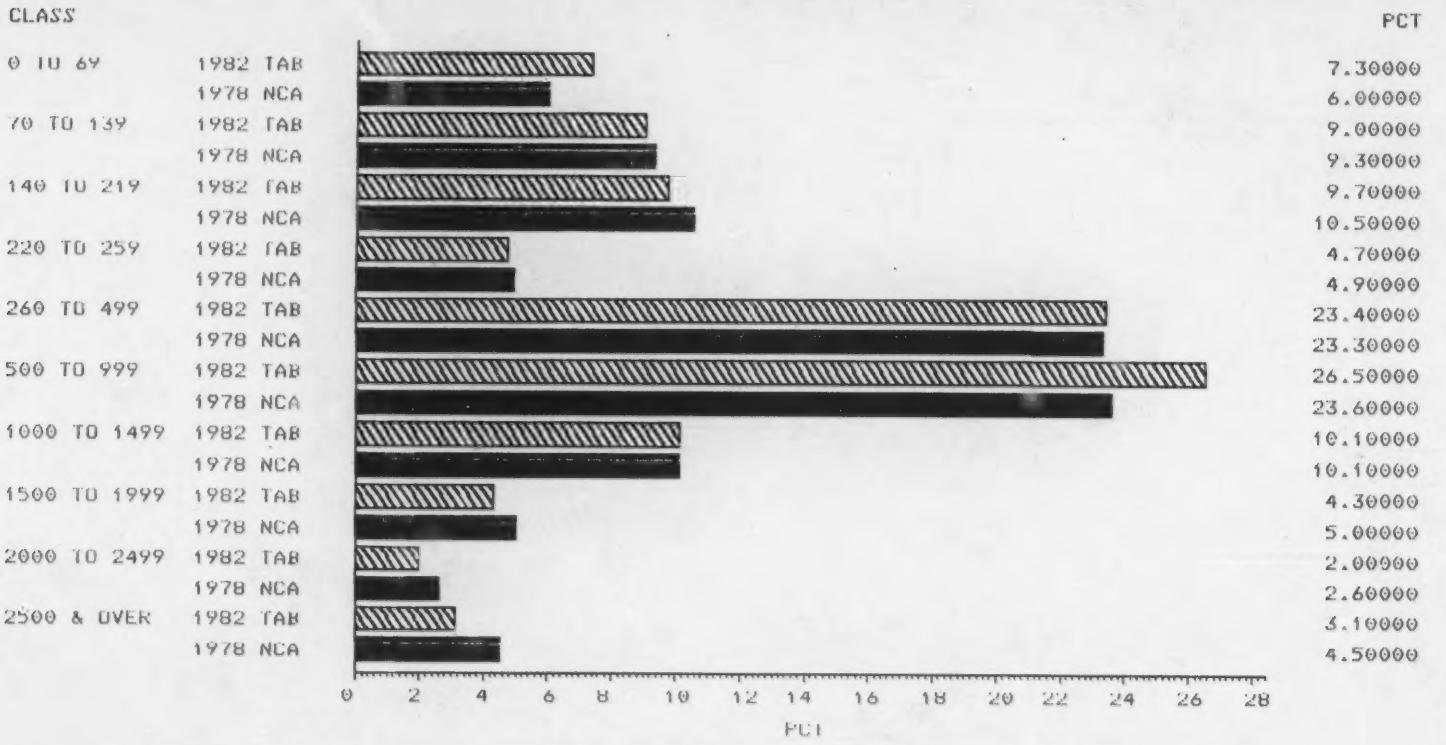
*NOTE.—Figures in appendix A correspond to same figures in text, except that appendix figures were developed using TAB farm size proxy.

FIGURE A7.—FARM SIZE DISTRIBUTION OF 1982 ASCS DIRECT PAYMENTS AND PARTICIPATING PRODUCERS[1]



[1]See Figure 7, p. 37.

FIGURE A8.—FARM SIZE DISTRIBUTION OF DIRECT PAYMENTS: 1978 NCA AND 1982 TAB[1]

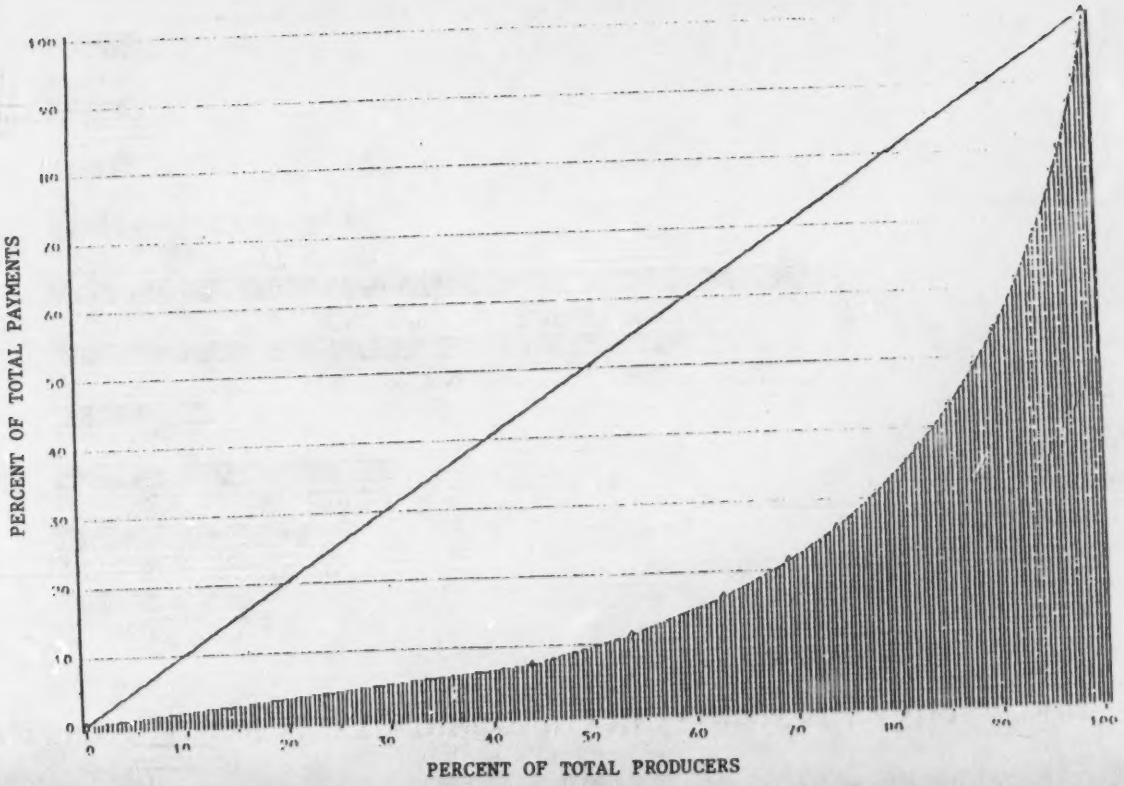


[1]See Figure 8, p. 38.

FIGURE A9.—LORENZE CURVE[1]

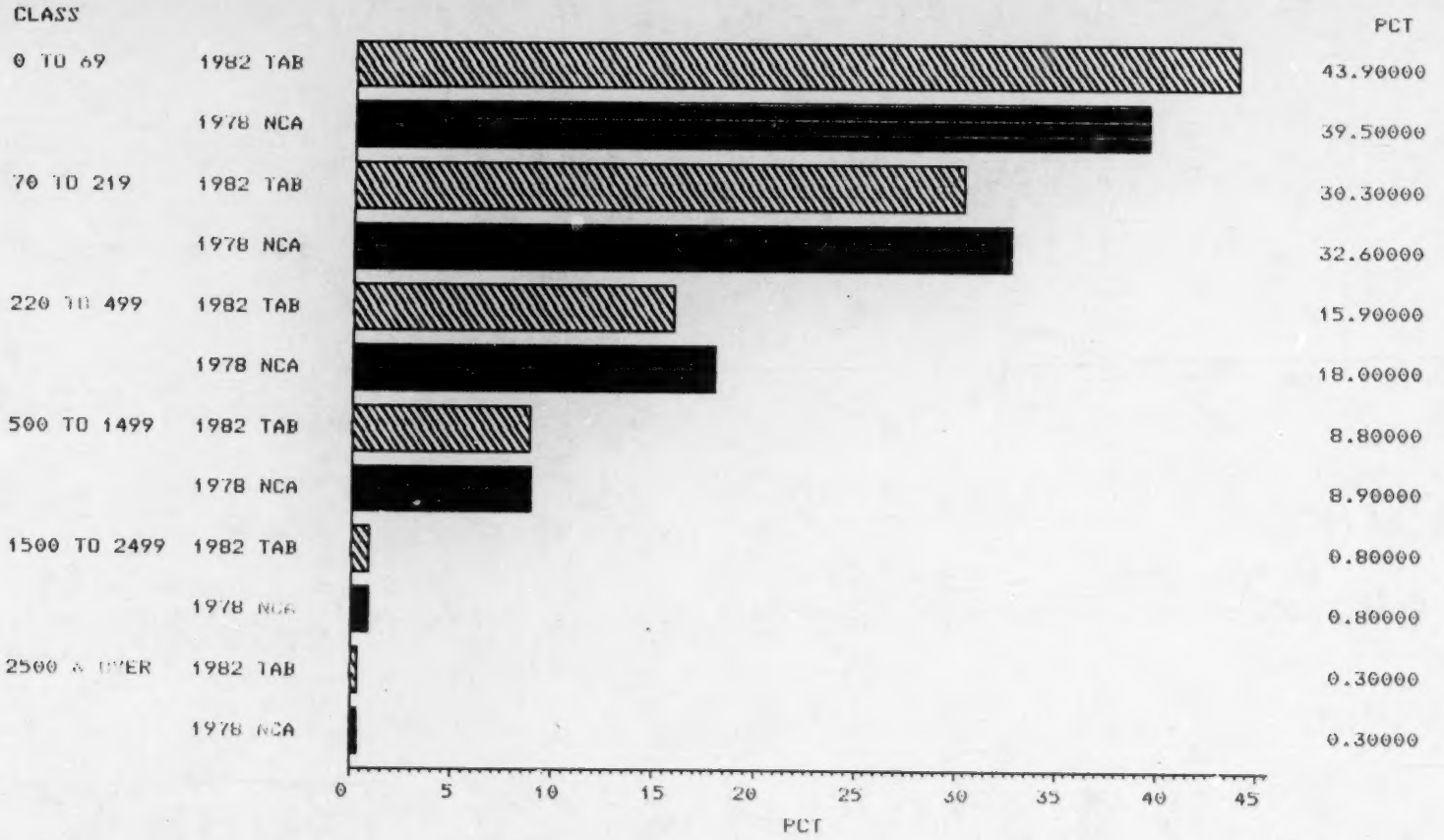
PAYMENTS DISTRIBUTION BY FARM SIZE

U.S. TAB



[1]See Figure 9, p. 40.

FIGURE A10.—FARM SIZE DISTRIBUTION OF PRODUCER PARTICIPATION: 1978 NCA AND 1982 TAB[1]



[1]See Figure 10, p. 49.

TABLE A4.—ASCS SUMMARY FOR CORN BY FARM SIZE: FARM SIZE PROXY IS TOTAL ACREAGE BASE (TAB)—Continued

Farm size class	Number of producers	Percent	Number of acres	Percent	Direct payments	Percent
380 to 439	4,679	2.14	1,294,877	4.91	$14,343,370	4.92
440 to 499	3,525	1.61	1,098,672	4.16	12,174,699	4.17
500 to 599	4,098	1.87	1,416,780	5.37	15,702,615	5.38
600 to 699	2,767	1.26	1,090,294	4.13	11,956,565	4.10
700 to 799	1,918	.88	857,068	3.25	9,379,005	3.22
800 to 899	1,377	.63	672,186	2.55	7,107,388	2.44
900 to 999	1,018	.47	530,688	2.01	5,788,225	1.98
1,000 to 1,249	1,603	.73	956,765	3.63	10,485,334	3.59
1,250 to 1,499	864	.39	602,347	2.28	6,591,908	2.26
1,500 to 1,999	826	.38	675,380	2.56	7,368,358	2.53
2,000 to 2,499	342	.16	331,357	1.26	3,576,280	1.23
2,500 plus	372	.17	647,668	2.46	5,792,387	1.99
All classes	218,766	100.00	26,379,776	100.00	291,674,112	100.00

TABLE A5.—ASCS SUMMARY FOR RICE BY FARM SIZE: FARM SIZE PROXY IS TOTAL ACREAGE BASE (TAB)

Farm size class	Number of producers	Percent	Number of acres	Percent	Direct payments	Percent
0 to 69	11,770	48.99	229,524	7.01	$22,934,624	8.49
70 to 99	1,604	6.68	114,840	3.51	11,456,390	4.24
100 to 139	1,682	7.00	164,602	5.03	16,551,673	6.13
140 to 179	1,358	5.65	175,607	5.37	17,661,584	6.54
180 to 219	1,022	4.25	162,591	4.97	16,219,825	6.01
220 to 259	922	3.84	167,618	5.12	16,953,568	6.28
260 to 319	1,005	4.18	220,590	6.74	22,360,416	8.28
320 to 379	785	3.27	199,469	6.09	20,141,184	7.46
380 to 439	693	2.88	199,628	6.10	19,617,648	7.27
440 to 499	507	2.11	171,611	5.24	16,122,103	5.97
500 to 599	636	2.65	230,759	7.05	20,334,192	7.53
600 to 699	463	1.93	190,081	5.81	16,085,088	5.96
700 to 799	339	1.41	145,581	4.45	11,006,847	4.08
800 to 899	248	1.03	123,617	3.78	8,532,591	3.16
900 to 999	174	.72	99,958	3.05	6,154,890	2.28
1,000 to 1,249	306	1.27	169,011	5.16	10,454,390	3.87
1,250 to 1,499	168	.70	105,360	3.22	5,256,845	1.95
1,500 to 1,999	160	.67	128,649	3.93	5,329,618	1.97
2,000 to 2,499	77	.32	98,990	3.02	3,071,897	1.14
2,500 plus	108	.45	174,744	5.34	3,777,095	1.40
All classes	24,027	100.00	3,272,830	100.00	270,021,888	100.00

TABLE A6.—ASCS SUMMARY FOR COTTON BY FARM SIZE: FARM SIZE PROXY IS TOTAL ACREAGE BASE (TAB)

Farm size class	Number of producers	Percent	Number of acres	Percent	Direct payments	Percent
0 to 69	41,047	49.79	818,371	6.70	$44,275,280	6.91
70 to 99	5,659	6.86	346,284	2.84	18,727,280	2.92
100 to 139	5,074	6.15	430,854	3.53	23,666,784	3.70
140 to 179	3,737	4.53	418,280	3.43	23,246,000	3.63
180 to 219	2,975	3.61	417,388	3.42	24,048,048	3.76
220 to 259	2,669	3.24	451,429	3.70	26,683,152	4.17
260 to 319	3,181	3.86	639,183	5.23	37,834,704	5.91
320 to 379	2,633	3.19	628,382	5.15	37,508,496	5.86
380 to 439	2,311	2.80	647,207	5.30	39,189,808	6.12
440 to 499	1,912	2.32	617,473	5.06	36,457,648	5.69
500 to 599	2,518	3.05	906,816	7.43	52,330,336	8.17
600 to 699	1,948	2.36	843,571	6.91	49,008,128	7.65
700 to 799	1,406	1.71	694,422	5.69	38,461,952	6.01
800 to 899	1,187	1.44	658,401	5.39	36,301,872	5.67
900 to 999	883	1.07	552,289	4.52	28,622,096	4.47
1,000 to 1,249	1,357	1.65	945,588	7.74	46,923,776	7.33
1,250 to 1,499	734	.89	602,745	4.94	27,707,968	4.33
1,500 to 1,999	699	.85	703,885	5.76	28,967,392	4.52
2,000 to 2,499	248	.30	295,736	2.42	9,352,451	1.46
2,500 plus	268	.33	592,233	4.85	11,014,742	1.72
All classes	82,446	100.00	12,210,537	100.00	640,326,912	100.00

Appendix B:

COMMODITY CREDIT CORPORATION COST CONCEPTS

A major factor contributing to confusion in Federal farm program costs, is the use and misuse of budget and accounting terms. Further, the administration, the Congressional Budget Office, and private forecasters have had to dramatically revise their agricultural forecasts over the last few years due to major policy changes and wide climatic swings. The combination of these factors has understandably given rise to concern over the accuracy and reliability of any farm cost estimates.

There are two CCC cost concepts, nevertheless, that are fixed and should serve as a basis for farm program cost discussions. These are *net expenditures* and *expenses.* The two terms are directly related to the more familiar budgetary terms *outlays* and *budget authority.*

Net expenditures. CCC net expenditures consist of all cash outlays less all cash receipts. The concept measures cash flow, and the term is interchangeable with the more familiar budget term—*outlays.* For fiscal year 1983, CCC cash outlays were $31.9 billion; CCC cash receipts were $12.0 billion; therefore, CCC net expenditures were $18.8 billion.

Table B1 shows the components of CCC net expenditures for fiscal years 1979 to 1983. The major component of CCC outlays include direct loans made to producers for crops and storage facilities. The major component of CCC receipts includes repayments on commodity loans. Over this 5-year period, CCC receipts have remained relatively constant, while CCC outlays have increased dramatically in four areas: (1) loans, (2) direct purchases—primarily dairy, (3) direct payments, and (4) interest expenditures on CCC borrowings from the Treasury.

Some individuals have criticized net expenditures as overstating the cost of farm programs. From a budget perspective, however, the net expenditure accurately reflects the drawdown of Federal resources in a specific time period.

When receipts do not match outlays in a given year, the CCC will borrow money from the Treasury to maintain solvency in cash-flow. In recent years the administration has effectively requested appropriations to maintain cash-flow, on the argument that these are advances on future losses to the CCC. Such appropriations have

allowed the CCC to maintain cash-flow without the need to raise its statutory borrowing authority (discussed below).

Expenses. The second CCC cost concept is expenses. As CCC is a corporate entity, purchases and commodities obtained from defaulted loans are asset acquistions. These commodity asset acquisitions are not considered expenses until disposal of the asset. At the time of disposition, the difference between what the CCC paid to acquire the commodity and what it received at the time of disposition, becomes an expense to the program.

Expenses therefore measure an unrecoverable cost and is the official basis for annual appropriations for net realized losses, and therein the creation of *budget authority.* Without this restoration of capital, CCC would exhaust its existing borrowing authority (currently limited to $25.0 billion in outstanding borrowings at any one time) jeopardizing program operations.

Under Public Law 87-155 (15 U.S.C. 713a-11), each fiscal year, an amount of money sufficient to reimburse CCC for its losses, as reflected in its annual financial report, is authorized to be appropriated. The schedule for the administration's annual budget submission appropriations for net realized losses are lagged 2 years. Hence, appropriations for losses incurred in fiscal year 1982, will be requested in the fiscal year 1984 budget. Recently, as discussed above, this operating procedure has not always been followed.

Cumulative through the end of fiscal year 1983, the CCC sustained $97.1 billion in losses; cumulative appropriations have restored $90.6 billion of these losses, therefore, audited unreimbursed losses are $6.5 billion today. Technically, this $6.5 billion should be the CCC budget authority request in fiscal year 1985. However, because of significant CCC losses occurring in fiscal year 1983, a continuation of current policies that request advances on anticipated losses will occur in fiscal year 1984.

Table B2 shows the components of CCC realized losses for the period fiscal year 1979 to 1983. These losses include some of the same components as shown for net expenditures in table B1 (e.g., direct payments), but the major difference between net expenditures and losses is the disbursement of CCC commodities at less than purchase or acquisition costs.

Recent commentators on the costs of Federal farm programs have wrongly interchanged these two cost concepts. While CCC net expenditures (outlays) are related to expenses (budget authority), the relationship is not straightforward and significantly depends on long-range forecasts of the agricultural economy. Both may be used to discuss farm program costs, both reflect a level of Federal resource requirement. The major difference in the two concepts, however, can be characterized as a measure of cash flow (outlays) and a meausre of unrecoverable costs (budget authority).

TABLE B1.—NET EXPENDITURES CCC FISCAL YEARS 1979–83

[In billions of dollars]

Category	1979	1980	1981	1982	1983
Outlays:					
Loans (commodities and facilities)	4.6	4.2	5.8	11.6	13.7
Purchases	.7	2.6	2.5	2.6	7.6
Direct payments	1.8	.4	1.0	1.5	3.6
Producer storage payments	.2	.3	.....	.7	1.0
Storage, handling, transportation	.1	.1	.3	.4	.6
Export activities	1.5	1.1	.1	.....	.1
Administrative	(Incl.)	(Incl.)	.2	.3	.3
Interest expenditures	1.0	1.1	1.2	.1	4.0
Other outlays	.....	.4	.6	.1	1.0
Total outlays	9.9	10.2	11.9	17.2	31.9
Receipts:					
Loan repayments	4.0	4.1	5.7	4.6	9.4
Sales proceeds	.7	1.0	.9	.6	1.6
Export repayments	1.1	1.4	1.0	.3	.1
Other receipts	.5	1.0	1.1	.2	.9
Total receipts	6.4	7.5	8.7	5.7	12.0
Net expenditures (budget outlays) [1]	3.5	2.7	4.0	11.6	18.8

[1] Includes net change in working capital of Corporation.

Source: History of Budgetary Expenditures of the Commodity Credit Corporation (Dec. 28, 1979 and Jan. 31, 1983).

TABLE B2.—EXPENSES, CCC REALIZED LOSSES FISCAL YEARS 1979–83

[In billions of dollars]

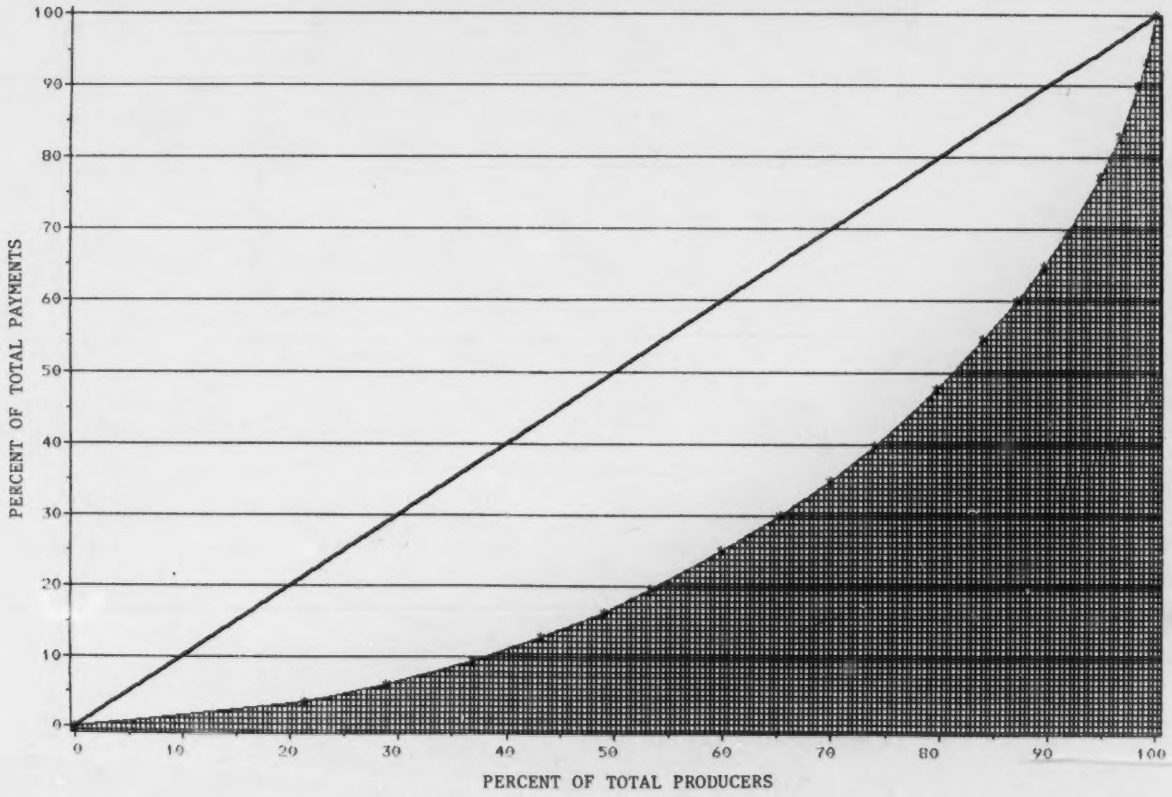
Category	1979	1980	1981	1982	1983
Direct payments	1.8	0.4	1.0	1.5	4.7
Interest exp	1.0	1.1	.6	2.1	1.5
Storage, handling, transportation	.1	.1	.3	.3	.6
Donations, domestic and international	.1	.2	.4	.6	1.4
Loss on sales	.9	.9	.2	.5	.6
PIK commodity	.....	.....	.....	.....	9.4
Producer storage payments	.2	.2	.1	.5	1.1
Administration	.1	.1	.2	.3	.3
Net other expenses	.3	[1] 2.0	.7	.....	.1
Total expenses	4.5	5.2	3.5	5.7	19.5

[1] Reflects losses associated with export control mitigation (grain embargo).

LORENZE CURVE

PAYMENTS DISTRIBUTION BY FARM SIZE

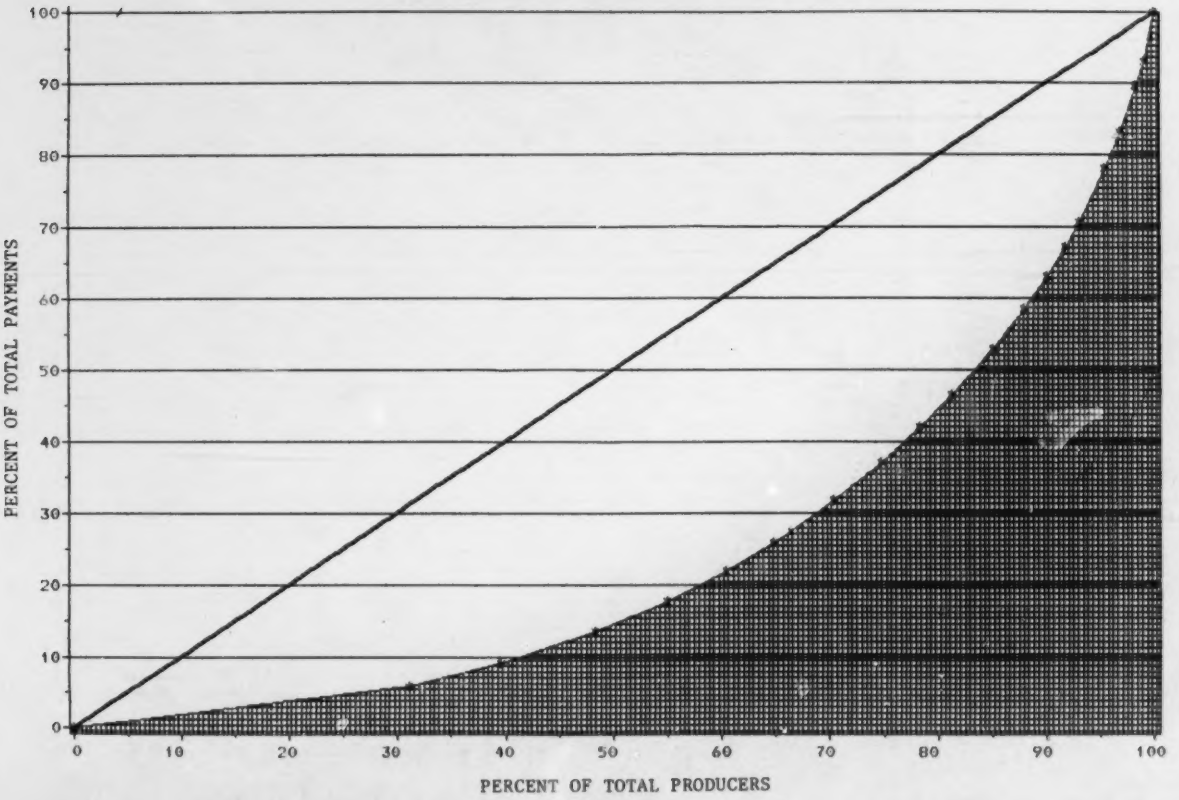
1982 BARLEY DIRECT PAYMENTS—TCL



LORENZE CURVE

PAYMENTS DISTRIBUTION BY FARM SIZE

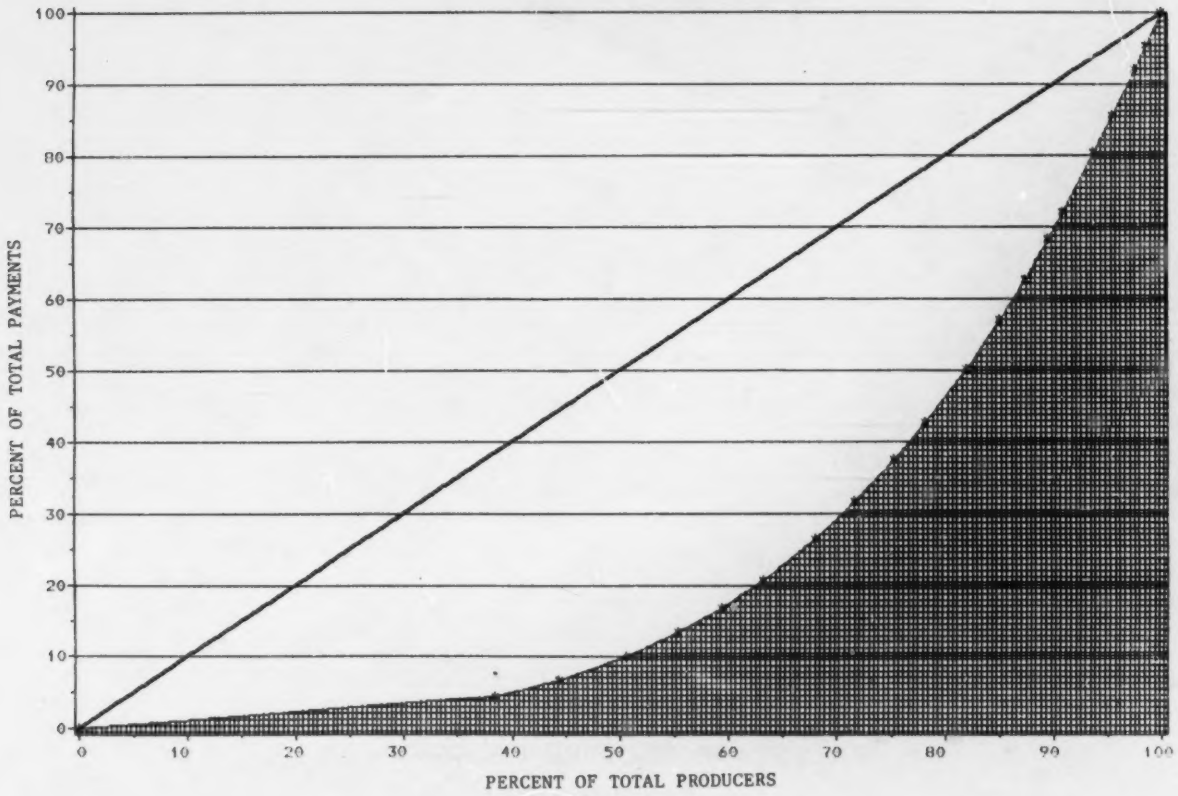
1982 SORGHUM DIRECT PAYMENTS—TCL



LORENZE CURVE

PAYMENTS DISTRIBUTION BY FARM SIZE

1982 RICE DIRECT PAYMENTS—TCL



Appendix D:
MISCELLANEOUS TABLES/TCL TABLES

TABLE D3.—ASCS SUMMARY FOR RICE BY FARM SIZE: FARM SIZE PROXY IS TOTAL CROPLAND (TCL)

Farm size class	Number of producers	Percent	Number of acres	Percent	Direct payments	Percent
0 to 69	9,249	38.49	253,396	4.11	$12,091,775	4.48
70 to 99	1,439	5.99	105,885	1.72	6,116,743	2.27
100 to 139	1,468	6.11	148,462	2.41	8,814,680	3.26
140 to 179	1,162	4.84	154,440	2.50	9,393,296	3.48
180 to 219	964	4.01	153,453	2.49	9,283,810	3.44
220 to 259	910	3.79	173,557	2.81	10,397,995	3.85
260 to 319	1,140	4.74	266,198	4.31	15,282,793	5.66
320 to 379	896	3.73	250,254	4.05	11,104,209	5.22
380 to 439	858	3.57	275,581	4.46	15,707,325	5.82
440 to 499	692	2.88	249,194	4.04	13,892,972	5.15
500 to 599	927	3.86	387,926	6.28	20,650,976	7.65
600 to 699	739	3.08	350,901	5.68	18,202,768	6.74
700 to 799	566	2.36	307,870	4.99	15,657,455	5.80
800 to 899	502	2.09	305,348	4.95	14,858,355	5.50
900 to 999	338	1.41	218,661	3.54	10,209,592	3.78
1,000 to 1,249	680	2.83	513,432	8.32	22,624,096	8.38
1,250 to 1,499	400	1.66	352,263	5.71	13,638,231	5.05
1,500 to 1,999	508	2.11	533,289	8.64	17,709,552	6.56
2,000 to 2,499	249	1.04	336,465	5.45	8,903,442	3.30
2,500 plus	340	1.42	835,921	13.54	12,482,471	4.62
All classes	24,027	100.00	6,172,487	100.00	270,021,888	100.0

Gini = 0.53625488.

TABLE D4.—ASCS SUMMARY FOR COTTON BY FARM SIZE: FARM SIZE PROXY IS TOTAL CROPLAND (TCL)

Farm size class	Number of producers	Percent	Number of acres	Percent	Direct payments	Percent
0 to 69	35,664	43.26	835,347	4.73	$31,646,544	4.94
70 to 99	6,144	7.45	380,619	2.16	15,385,156	2.40
100 to 139	5,083	6.17	432,926	2.45	17,294,224	2.70
140 to 179	3,828	4.64	437,078	2.48	17,606,848	2.75
180 to 219	2,795	3.39	382,256	2.17	15,647,027	2.44
220 to 259	2,469	2.99	418,559	2.37	17,580,128	2.75
260 to 319	3,161	3.83	630,186	3.57	27,186,880	4.25
320 to 379	2,718	3.30	659,813	3.74	28,273,552	4.42
380 to 439	2,296	2.78	652,104	3.69	28,017,504	4.38
440 to 499	2,171	2.63	701,568	3.97	30,813,712	4.81
500 to 599	2,911	3.53	1,077,441	6.10	46,510,672	7.26
600 to 699	2,420	2.94	1,071,559	6.07	45,372,320	7.09
700 to 799	1,819	2.21	930,884	5.27	39,149,696	6.11
800 to 899	1,488	1.80	854,577	4.84	35,873,408	5.60
900 to 999	1,245	1.51	817,826	4.63	33,363,072	5.21
1,000 to 1,249	2,192	2.66	1,655,970	9.38	66,007,168	10.31
1,250 to 1,499	1,314	1.59	1,182,957	6.70	44,374,560	6.93
1,500 to 1,999	1,377	1.67	1,561,534	8.85	52,064,896	8.13

TABLE D4.—ASCS SUMMARY FOR COTTON BY FARM SIZE: FARM SIZE PROXY IS TOTAL CROPLAND (TCL)—Continued

Farm size class	Number of producers	Percent	Number of acres	Percent	Direct payments	Percent
2,000 to 2,499	594	.72	822,141	4.66	$22,903,200	3.58
2,500 plus	757	.92	2,146,892	12.16	25,260,960	3.94
All classes	82,446	100.00	17,652,192	100.00	640,330,752	100.00

Gini = 0.61868983.

TABLE D5.—ASCS SUMMARY FOR BARLEY BY FARM SIZE: FARM SIZE PROXY IS TOTAL CROPLAND (TCL)

Farm size class	Number of producers	Percent	Number of acres	Percent	Direct payments	Percent
0 to 69	4,867	12.92	143,969	1.48	$1,014,545	1.66
70 to 99	2,336	6.20	118,637	1.22	877,533	1.43
100 to 139	2,425	6.44	174,209	1.79	1,203,494	1.96
140 to 179	2,280	6.05	206,598	2.12	1,458,314	2.38
180 to 219	1,737	4.61	190,969	1.96	1,291,966	2.11
220 to 259	1,606	4.26	203,143	2.08	1,368,140	2.23
260 to 319	2,368	6.29	363,423	3.73	2,558,415	4.17
320 to 379	1,856	4.93	325,817	3.34	2,226,566	3.63
380 to 439	1,727	4.58	346,998	3.56	2,286,156	3.73
440 to 499	1,559	4.14	353,637	3.63	2,357,636	3.85
500 to 599	2,279	6.05	569,476	5.84	3,824,632	6.24
600 to 699	1,885	5.00	541,436	5.56	3,657,513	5.97
700 to 799	1,720	4.57	535,172	5.49	3,587,180	5.85
800 to 899	1,332	3.54	468,077	4.80	3,135,713	5.12
900 to 999	1,140	3.03	424,444	4.36	2,844,228	4.64
1,000 to 1,249	2,057	5.46	880,991	9.04	5,839,542	9.53
1,250 to 1,499	1,299	3.45	680,991	6.99	4,447,897	7.26
1,500 to 1,999	1,452	3.85	916,809	9.41	5,718,012	9.33
2,000 to 2,499	686	1.82	557,104	5.72	3,442,895	5.62
2,500 plus	1,058	2.81	1,741,856	17.88	8,141,034	13.28
All classes	37,669	100.00	9,743,760	100.00	61,281,248	100.00

Gini = 0.45829259.

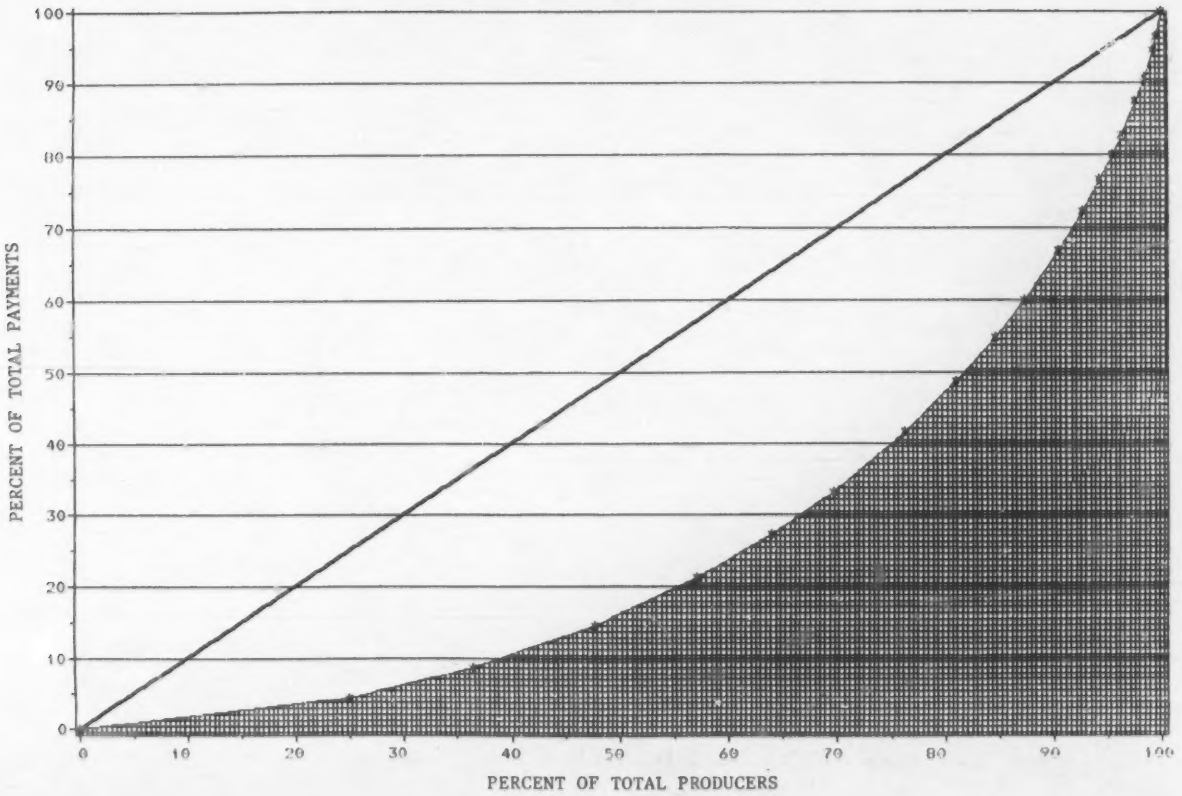
TABLE D6.—ASCS SUMMARY FOR WHEAT BY FARM SIZE: FARM SIZE PROXY IS TOTAL CROPLAND (TCL)

Farm size class	Number of producers	Percent	Number of acres	Percent	Direct payments	Percent
0 to 69	66,182	25.58	2,234,045	2.93	$15,290,820	3.11
70 to 99	21,894	8.46	1,533,407	2.01	10,391,088	2.12
100 to 139	22,267	8.61	2,116,747	2.77	14,125,696	2.88
140 to 179	17,402	6.73	2,151,907	2.82	14,365,832	2.92
180 to 219	13,817	5.34	2,088,888	2.74	13,823,306	2.81
220 to 259	11,245	4.35	1,985,475	2.60	12,980,605	2.64
260 to 319	14,791	5.72	3,153,931	4.13	20,899,136	4.25

LORENZE CURVE

PAYMENTS DISTRIBUTION BY FARM SIZE

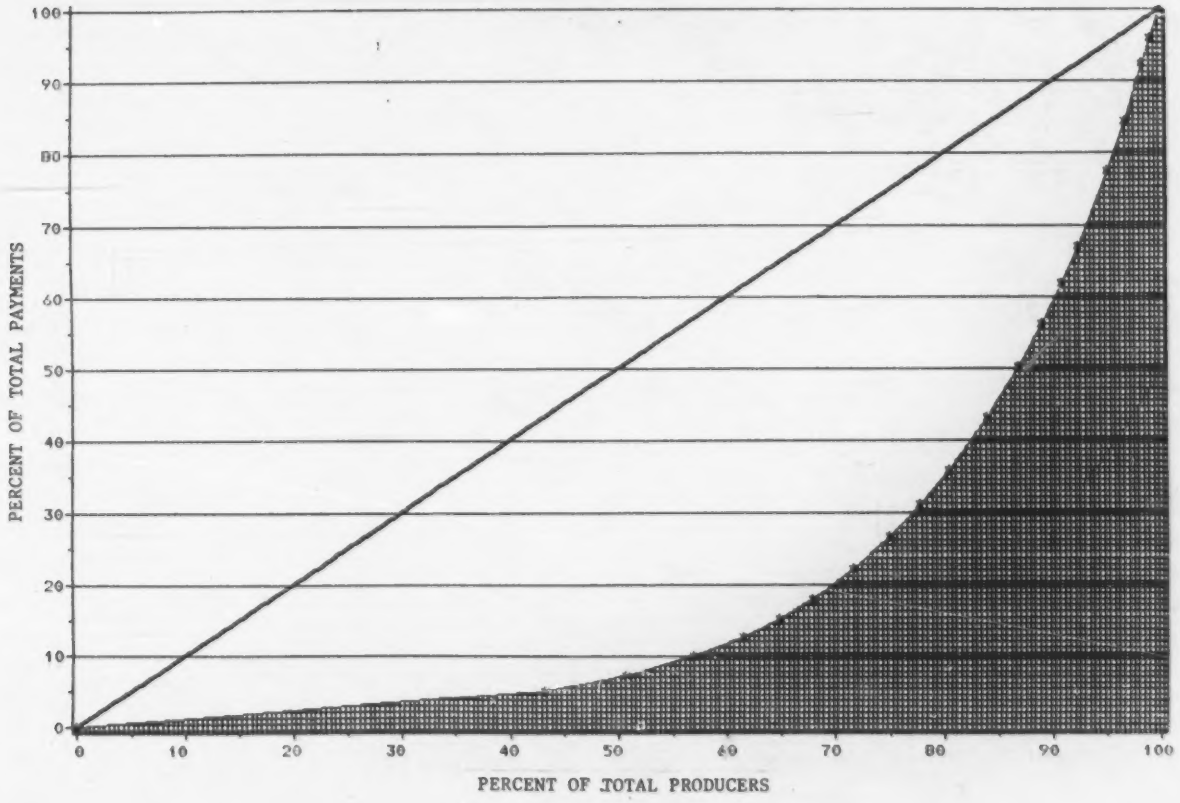
1982 CORN DIRECT PAYMENTS—TCL



LORENZE CURVE

PAYMENTS DISTRIBUTION BY FARM SIZE

1982 COTTON DIRECT PAYMENTS—TCL



LORENZE CURVE

PAYMENTS DISTRIBUTION BY FARM SIZE

1982 WHEAT DIRECT PAYMENTS—TCL

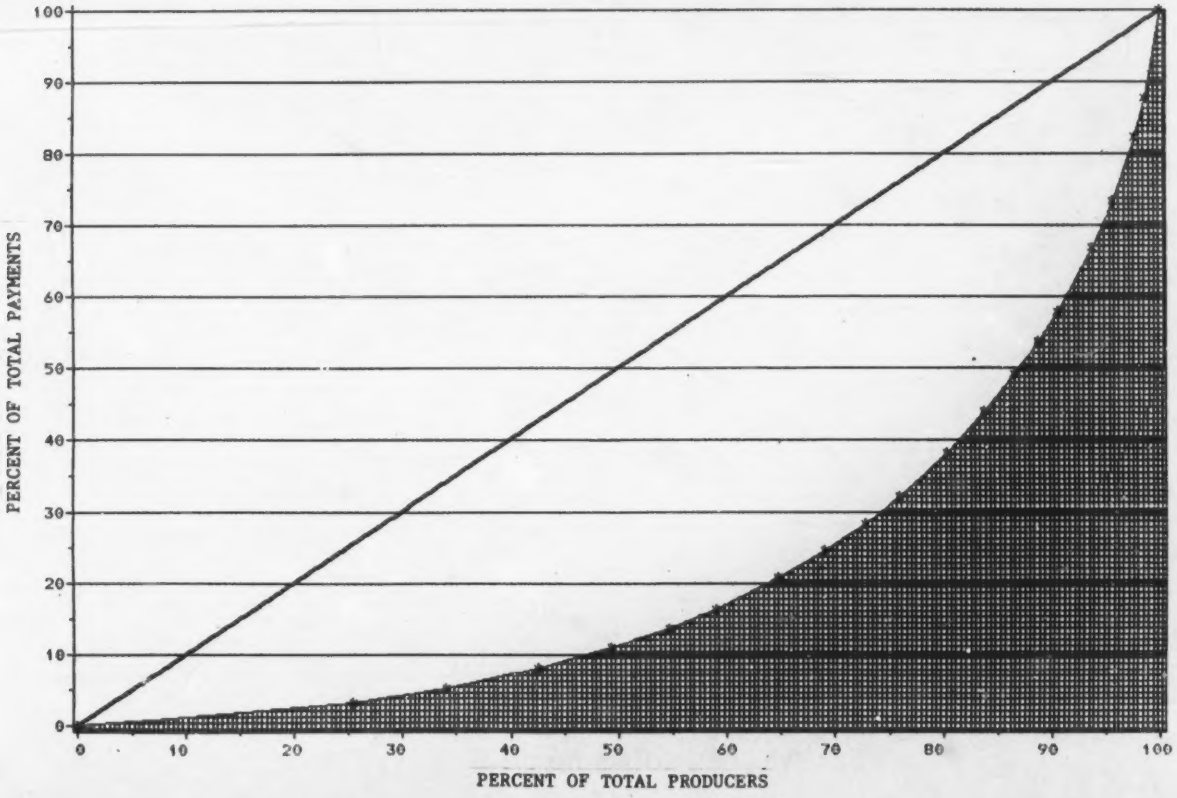


TABLE D1.—VARIANCE OF SENATE BUDGET COMMITTEE DATA AND ASCS REPORTED DATA

	Total	Wheat	Barley	Cotton	Corn	Sorghum	Rice
Acres for payment	70,629,447	31,693,538	3,129,780	8,771,166	18,820,119	5,835,022	2,379,822
	(1.0418)	(1.0186)	(1.0744)	(1.0226)	(1.0242)	(1.0599)	(1.0399)
Number of producers	578,982	265,889	37,560	88,976	224,539	96,088	25,762
	(.9542)	(.9729)	(1.0029)	(.9266)	(.9743)	(.9733)	(.9327)
Disaster payment	$144,974,048	$12,220,796	$89,629	$128,932,598	$458,960	$2,969,499	0
Deferred payment	$1,679,146,412	$475,811,650	$60,037,221	$522,037,179	$290,349,573	$63,955,169	$266,956,060
	(1.0146)	(.9989)	(1.0189)	(1.0310)	(1.0038)	(1.0153)	(1.0115)
Total payment	$1,824,120,460	$488,032,446	$60,126,850	$650,969,777	$290,808,533	$66,924,668	$266,956,060
	(.9986)	(1.0065)	(1.0192)	(.9836)	(1.0030)	(.9991)	(1.0115)
Prevented planted	$1,123,635	$781	$94	$847,556	0	$275,205	0
	(.0006)	(.0000)	(.0000)	(.0013)	(.0000)	(.0042)	(.0000)

Note.—Program data were obtained from ASCS. Figures in parentheses under Acres for Payment, Number of Producers and Total Payments is the ratio of model estimate to ASCS reported data. Figures in parentheses under Prevented Planted are percentages of direct program payments.

TABLE D2.—1982 ASCS REGIONAL PRODUCER SUMMARY, BY COMMODITY AND REGION: ACREAGE MEASURE IS ACREAGE BASE

Region	Wheat	Corn	Barley	Sorghum	Cotton	Rice	Oats	Total
Northwest:								
Participants	15,671	269	7,700	2	0	0	1,031	18,067
Acreage	3,629,838	57,327	1,325,597	173	0	0	58,637	5,061,689
Direct payments	$61,282,304	$243,664	$15,750,405	$278	0	0	$2,338	$77,278,989
Southwest:								
Participants	4,360	685	1,611	1,509	5,597	2,337	274	13,002
Acreage	1,507,433	212,703	413,254	375,619	1,388,497	467,917	43,760	4,401,828
Direct payments	$12,898,572	$944,402	$3,451,560	$2,003,487	$98,670,400	$44,601,136	$5,628	$162,575,185
Plains:								
Participants	180,318	61,976	22,583	82,632	51,854	2,466	18,109	289,448
Acreage	37,259,536	8,719,971	3,763,446	9,183,186	7,647,985	539,665	2,325,387	69,269,440
Direct payments	$355,488,768	$95,509,024	$33,024,528	$60,803,184	$359,340,800	$44,575,536	$215,435	$948,957,275
North Central:								
Participants	41,500	130,975	4,713	5,534	2,054	402	5,740	157,666
Acreage	4,532,870	15,341,414	762,004	467,042	174,159	64,681	985,388	22,237,792
Direct payments	$46,236,864	$181,549,104	$8,532,360	$2,831,116	$8,974,809	$4,939,913	$24,101	$253,088,267
South:								
Participants	14,866	19,915	667	3,790	22,941	18,822	765	68,053
Acreage	2,222,908	1,431,805	41,338	391,754	2,999,896	2,200,567	72,209	9,321,133
Direct payments	$13,928,377	$7,971,057	$282,214	$1,217,536	$173,340,864	$175,905,712	$3,295	$372,649,055
Northeast:								
Participants	1,973	4,946	387	52	0	0	1,524	6,193
Acreage	149,929	616,735	22,772	2,118	0	0	113,279	901,136
Direct payments	$1,289,654	$5,457,920	$178,549	$10,884	0	0	$2,125	$6,939,132
U.S. total:								
Participants	258,689	218,766	37,669	93,519	82,446	24,027	27,448	552,438
Acreage	49,302,480	26,379,776	6,335,562	10,419,892	12,210,537	3,272,830	3,599,495	111,520,848
Direct payments	$491,202,560	$291,674,368	$61,281,248	$66,866,256	$640,330,752	$270,021,888	$252,922	$1,821,629,994

TABLE D6.—ASCS SUMMARY FOR WHEAT BY FARM SIZE: FARM SIZE PROXY IS TOTAL CROPLAND (TCL)—Continued

Farm size class	Number of producers	Percent	Number of acres	Percent	Direct payments	Percent
320 to 379	11,144	4.31	2,820,805	3.70	$18,529,296	3.77
380 to 439	9,735	3.76	2,875,556	3.77	19,033,792	3.87
440 to 499	8,234	3.18	2,793,085	3.66	18,277,776	3.72
500 to 599	11,200	4.83	4,426,259	5.80	29,462,768	6.00
600 to 699	8,999	3.48	4,223,226	5.53	28,233,168	5.75
700 to 799	7,233	2.80	3,906,517	5.12	25,907,792	5.27
800 to 899	5,646	2.18	3,443,554	4.51	22,658,832	4.61
900 to 999	4,625	1.79	3,155,525	4.13	20,718,912	4.22
1,000 to 1,249	8,201	3.17	6,593,971	8.64	43,399,712	8.84
1,250 to 1,499	4,911	1.90	4,877,183	6.39	32,006,496	6.52
1,500 to 1,999	5,236	2.02	6,672,175	8.74	43,700,688	8.90
2,000 to 2,499	2,465	.95	4,115,947	5.39	26,852,288	5.47
2,500 plus	3,462	1.34	11,147,984	14.61	60,545,984	12.33
All classes	258,689	100.00	76,316,064	100.00	491,202,560	100.00

Gini = 0.58809106.

TABLE D7.—ASCS SUMMARY FOR SORGHUM BY FARM SIZE: FARM SIZE PROXY IS TOTAL CROPLAND (TCL)

Farm size class	Number of producers	Percent	Number of acres	Percent	Direct payments	Percent
0 to 69	29,059	31.07	707,657	5.17	$3,867,746	5.78
70 to 99	8,038	8.60	409,707	3.00	2,220,818	3.32
100 to 139	8,126	8.69	551,547	4.03	2,921,564	4.37
140 to 179	6,220	6.65	542,100	3.96	2,821,543	4.22
180 to 219	5,106	5.46	532,284	3.89	2,798,116	4.19
220 to 259	4,181	4.47	512,147	3.74	2,670,593	3.99
260 to 319	5,142	5.50	738,823	5.40	3,911,137	5.85
320 to 379	4,072	4.35	677,852	4.96	3,525,090	5.27
380 to 439	3,349	3.58	643,730	4.71	3,335,354	4.99
440 to 499	2,768	2.96	584,992	4.28	3,007,605	4.50
500 to 599	3,591	3.84	850,100	6.22	4,369,010	6.53
600 to 699	2,669	2.85	735,101	5.37	3,758,254	5.62
700 to 799	1,993	2.13	612,917	4.48	3,041,938	4.55
800 to 899	1,557	1.66	532,234	3.89	2,744,319	4.10
900 to 999	1,190	1.27	453,982	3.32	2,275,582	3.40
1,000 to 1,249	2,224	2.38	964,554	7.05	5,015,339	7.50
1,250 to 1,499	1,321	1.41	665,161	4.86	3,290,067	4.92
1,500 to 1,999	1,394	1.49	906,302	6.63	4,279,108	6.40
2,000 to 2,499	636	.68	517,921	3.79	2,385,901	3.57
2,500 plus	883	.94	1,537,259	11.24	4,627,184	6.92
All classes	93,519	100.00	13,676,347	100.00	66,866,256	100.00

Gini = 0.52034844.

TABLE D8.—ASCS SUMMARY FOR CORN BY FARM SIZE: FARM SIZE PROXY IS TOTAL CROPLAND (TCL)

Farm size class	Number of producers	Percent	Number of acres	Percent	Direct payments	Percent
0 to 69	54,777	25.04	1,943,544	4.76	$12,925,802	4.43
70 to 99	24,967	11.41	1,796,858	4.40	12,611,074	4.32
100 to 139	24,772	11.32	2,479,031	6.07	17,153,200	5.88
140 to 179	20,536	9.39	2,718,702	6.66	19,481,328	6.68
180 to 219	14,965	6.84	2,437,400	5.97	17,366,048	5.95
220 to 259	12,494	5.71	2,416,814	5.92	17,330,880	5.94
260 to 319	14,628	6.69	3,357,473	8.22	24,740,768	8.48
320 to 379	10,274	4.70	2,779,850	6.80	20,464,656	7.02
380 to 439	7,858	3.59	2,401,542	5.88	17,693,376	6.07
440 to 499	5,819	2.66	2,002,977	4.90	15,011,718	5.15
500 to 599	6,976	3.19	2,750,678	6.73	20,509,392	7.03
600 to 699	4,857	2.22	2,122,639	5.20	15,743,517	5.40
700 to 799	3,357	1.53	1,647,974	4.03	12,300,815	4.22
800 to 899	2,511	1.15	1,355,435	3.32	10,166,359	3.49
900 to 999	1,868	.85	1,100,635	2.69	7,679,766	2.63
1,000 to 1,249	2,995	1.37	1,961,556	4.80	14,332,079	4.91
1,250 to 1,499	1,717	.78	1,294,916	3.17	9,446,648	3.24
1,500 to 1,999	1,683	.77	1,541,849	3.77	11,210,073	3.84
2,000 to 2,499	720	.33	773,561	1.89	5,400,677	1.85
2,500 plus	992	.45	1,967,100	4.82	10,107,215	3.47
All classes	218,766	100.00	40,850,416	100.00	291,674,368	100.00

Gini = 0.49296999.

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